



UNIVERSITY OF MINNESOTA
EXTENSION

**Crop Pest Management Short Course
&
Minnesota Crop Production Retailers Trade Show**

**December 7-9, 2021
Minneapolis Hilton Hotel**

Let's Get Real

Program & Exhibitor Guide

WELCOME to the 70th Annual Crop Pest Management Short Course and MCPR Trade Show

MCPR Board Chair's Message

Welcome back to the Crop Pest Management and Minnesota Crop Production Retailers Trade Show! After a challenging year and a half, we are thankful to again be back in-person and able to partake in educational sessions and social functions with our peers. We are also excited for the change-up in venue location and hope everyone enjoys the trade show and educational classes at our Upper Midwest Ag "Get Together". We hope you're able to visit and re-connect with others who are dedicated to the agricultural industry!

Rick Walker
MCPR Board of Directors



Dean's Message

Good decisions about crop production require solid research-based information. University of Minnesota Extension's Crop Pest Management (CPM) Short Course and the Minnesota Crop Production Retailers (MCPR) Trade Show provide crop decision-makers with an excellent opportunity to learn more about the complex issues surrounding agriculture today and to meet with other professionals who share similar interests. The joint MCPR and University of Minnesota Extension event offers many educational opportunities and ample time for building connections with your colleagues. I hope you enjoy the presentations and networking and gain practical, useful information at the 2021 CPM Short Course and MCPR Trade Show.

Bev Durgan
Dean, University of Minnesota Extension

Trade Show Hours

- Tuesday, December 7th – 3:00 pm - 6:30 pm
- Wednesday, December 8th – 9:00 am - 5:00 pm (includes breaks and lunch, in the exhibit hall)
- Thursday, December 9th – 9:00 am - 11:00 am (includes breaks and lunch)

Registration Hours

Tuesday – 9:00 am - 6:30 pm Wednesday – 7:00 am - 5:00 pm Thursday – 7:00 am - 11:00 am

Educational Tracks

Technical Service Provider (TSP) Training

December 7th 10:00 am - 1:00 pm

Room: Symphony Ballroom

This training will present the latest information from the USDA- Natural Resources Conservation Service (USDA- NRCS) on nutrient and pest management to TSPs certified in these categories in Minnesota. This session will focus on the latest tips for documentation that is needed for Nutrient Management (590) and Pest Management Conservation System (595) in the EQIP and CSP programs. The Conservation Activity Plan (CAP) process is changing to CPA, DIA, and CEMAs. Hear the latest information along with other updates on the TSP website, certification and recertification. *(Limit of 40 registrations due to USDA Workplace Safety requirements - must be registered for this event to attend!)*

Pesticide Applicator Recertification

December 7th 2:00 pm - 4:45 pm

Room: Orchestra Ballroom

December 8th 8:00 am - 5:00 pm

Room: Orchestra Ballroom

These MDA-approved sessions are for applicators that need recertification credit in Categories A (Core), C (Field Crop Pest Management), and/or H (Seed Treatment). Workshop topics will include insect, disease, and weed updates, new pesticide safety topics, prevention of off-target movement of pesticides, and more.

- Category A + C: Attend all December 8th recertification sessions.
- Category A + H: Attend December 7th from 2 pm to 4:45 pm and December 8th recertification sessions from 8 am to 11 am.
- Category A + C + H: Attend all December 7th and December 8th recertification sessions.

MCPR Plenary Session

December 7th 1:00 pm - 3:00 pm

Room: Marquette Ballroom

1:00 pm What's next for Farm Bill Programs?

Keynote Speaker Collin Peterson

What is it like to be one of the chief architects of key federal legislation that affects American farmers, ranchers, and growers on a daily basis? MCPR is thrilled to have one of Capitol Hill's most influential agricultural policymakers in recent decades join us for a discussion on the finer points of

how agricultural related legislation is crafted in Washington, D.C. As one of the key authors of the current Farm Bill, former Peterson will discuss the various titles and commodity programs that make up the Farm Bill, as well as what may be in store for the next Farm Bill. In addition, Peterson will discuss what life is like after serving in Congress for thirty years, as well as what the future of agriculture policy making will look like in a Congress that seems to grow more and more divided as the years go by. This keynote speech by former Congressman Peterson will be one that you will not want to miss!

1:45 pm Are fertilizer prices heading toward record highs due to a series of black swan events?

Josh Linville, StoneX Financial Inc - FCM Division

The fertilizer industry is swarmed with Black Swan events. From the impacts of Hurricane Ida to political and climate issues entangled in a cobweb of production slowdowns in Europe and China, these Black Swan events continue to stack up. Josh Linville of StoneX Financial Inc. - FCM Division and his team have been working to educate and inform the fertilizer marketplace on market happenings, the use of fertilizer futures derivatives to protect physical product, and forward market. Linville will also explain how the Chinese government effectively banned phosphate exports through June 2022 on the heels of the news that China's production was already throttled by climate emission concerns from production plants. The impact is already being seen with prices, as China accounts for almost one-third of the world phosphate trade. Linville will use his unique perspective on the marketplace to help explain what is happening and why. He will detail how global fertilizer prices have gone from near historic lows to historic highs in a twelve-to-sixteen-month period as well as what to expect going forward.

2:30 pm Is the struggle for workforce talent here to stay?

Panelists are Judy Barka & Keith Olander, AgCentric; Arnie Sinclair & Abby Reiner, Heartland Ag; Dale Johnson, Ag Partners

A big problem for ag retailers, manufacturers, and distributors in the crop input industry is the struggle to find talent and create a pool of potential hires. Ag retailers need strong leadership and top employment recruits to succeed. But many are located in rural areas or smaller communities where the population is limited, and unemployment rates are so low that it's hard to find interested talent that fits the bill. This is why being proactive when recruiting an ag workforce is so important. During this panel discussion, several MCPR members will share an overview of the talent recruitment

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Educational Tracks

issues, identify ways they are working through these issues, and meet the MN State Centers of Agricultural Excellence Outreach team to share how they can help you connect with colleges and high school Agriculture programs.

General Session

December 8th Starting at 8:00 am

Room: Marquette Ballroom

8:00 am Recruitment strategies in a post-pandemic world

Mark Waschek, Ag 1 Source, Professional Recruitment Firm

Ag 1 Source is a Professional Agricultural Recruitment Firm where Mark has been responsible for leading the Agronomy, Seed, Crop Production and Grain activities of the organization in the upper Midwest since 2006. Our work with agri-businesses over the past year has revealed that the fundamental principles of hiring and retaining have not changed. However, what is now required of business leaders, is a shift from traditional recruiting and interviewing processes to a more nuanced approach to the way an organization establishes their overall talent management strategy. Implementing just a few of these tactics can have a significant impact on your ability to hire your future talent.

In this session you will learn:

- What challenges did the pandemic create, and which of those challenges are now the new "norm" that require an immediate change in your recruiting process?
- How did the pandemic affect the way your future employees approach a career change, and how to use that to your advantage?
- What are the key steps your organization can take in 2022 to gain the edge on your competition for top employees in the market?
- Examples of how other businesses like yours have been able to significantly enhance the effectiveness of their hiring and retention strategies with only minor adjustments.

9:00 am Growing and selling carbon credits in US agriculture: how will this effect Minnesota farmers?

Adam Kiel, Soil and Water Outcomes Fund.

The Soil and Water Outcomes Fund provides financial incentives directly to farmers who transition to on-farm conservation practices that yield positive environmental outcomes like carbon sequestration and water quality improvement. The Outcomes Fund provides new market

opportunities and revenue streams for farmers by selling these environmental outcomes to the public and private customers. By stacking together, the many positive environmental outcomes of on-farm conservation practices, the Outcomes Fund delivers substantial per-acre payments to farmers and extremely competitive environmental outcome pricing to our customers. The Soil and Water Outcomes Fund was developed in 2019 by the Iowa Soybean Association in partnership with Quantified Ventures, an impact investment advisory firm. Over the past year the Outcomes Fund has experienced a tenfold growth and now operates in ten states.

10:00 am Outlook for crop input and commodity prices in 2022

Bryon Parman, North Dakota State University

This presentation will look at farm financial performance and overall financial health during the COVID-19 pandemic along with the unprecedented amount of aid provided by the federal government. It will also examine many of the supply chain issues and how agriculture is being impacted. Other production cost challenges will be examined including chemical, machinery and land rental prices as we transition into the 2022 production year.

Concurrent Sessions I & II

(Session I jointly offered with Applicator Recertification)

December 8th

Rooms: Marquette Ballroom and Orchestra Ballroom

1:00 & 1:55 pm Let's get real about soybean insecticides: What's in and what works?

Erin Hodgson, Iowa State University

Twenty years ago, soybean was a relatively low-risk crop to grow with only occasional pest problems. But the discovery of soybean aphid in North America changed the game and now we are forced to think about treatment decisions every summer. Today, Minnesota has an erratic pest complex in soybean, including persistent and migratory species. At almost any time in the growing season, one could go visit a field and find 10+ potential pest species actively feeding – often way below an economic level. Scouting and timely foliar applications have greatly improved the odds of making a profitable decision when populations threaten yield losses. Farmers have relied on a few insecticide groups to protect yield in soybean for about two decades. Most of the time, farmers had high confidence in a rescue treatment for the target pest.

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Educational Tracks

But the game is changing again: invasive species, host shifts, insecticide resistance and climate change. At the same time, new insecticide groups are becoming available, and some active ingredients will be off the market. It makes soybean pest management more complicated! In my session, I will discuss trends in pest activity, efficacy updates and options for insecticides.

1:00 & 1:55 pm **A simple (?) conversation about corn rootworms, drought and management success in 2021**

Ken Ostlie and Bruce Potter, University of Minnesota

This summer's experience with corn rootworm (CRW) generated lots of questions from farmers and their ag advisors. After years of low corn rootworm pressure, adult numbers and corn rootworm pressure were unexpectedly higher. Where did all these beetles come from? Why was rootworm feeding in higher-than-expected numbers? Did drought affect CRW survival and root injury? Did drought conditions affect performance of CRW transgenic traits and soil insecticides? What's on the horizon for next year? Bruce and I will explain the factors underlying corn rootworm issues in 2021, review soil insecticide and corn rootworm trait performance and answer questions from the audience.

3:15 & 4:10 pm **Are you PRE-pared for the 2022 weed management season?**

Rodrigo Werle, University of Wisconsin-Madison

During his presentation, Dr. Rodrigo Werle will discuss four years of research looking at integrated weed management practices in Wisconsin corn and soybean production systems. Werle will focus on the results of projects comparing the efficacy of multiple PRE-emergence corn and soybean herbicides on control of waterhemp and giant ragweed and the role of cereal rye cover crop on weed suppression.

3:15 & 4:10 pm **SHARED SESSION**
Understanding, detecting and managing sporadic and developing crop pest management

Bruce Potter, University of Minnesota

Dry weather was a driver for arthropod pests during 2021 and some areas are set up for infestations in 2022. This presentation will provide a brief review on the biology and management of grasshoppers and two-spotted spider mites, species that thrive in warm, dry weather. Information on the soybean gall midge, a new insect pest of Midwest soybeans, will include an update on its distribution, biology, and potential management options.

What problem insects are really lurking in your field?

Anthony Hanson, University of Minnesota

Efficient pest management revolves around understanding what's actually developing in individual fields. Are specific pests even present? Is it even the right time of year to be looking? Are there actually high enough populations to be concerned about? Keeping these questions in mind is vital for any integrated pest management program while determining when to scout. While scouting your own fields is the gold standard for insect management decisions, region-wide surveys and pest forecasts can help inform growers when to be on the lookout and for what in order to determine when focused scouting is needed. This session will introduce tools available to growers through University of Minnesota Extension that can aid scouting efforts such as the spring and summer western MN IPM survey for small grains and soybeans, the fall European corn borer survey, and degree-day maps for forecasting pest development and critical scouting time.

Concurrent Sessions III & IV

December 8th

Rooms: Conrad and Symphony Ballroom

1:00 & 1:55 pm **The soybean cyst nematode, a very real threat to profitable soybean production in the future**

Greg Tylka, Iowa State University

The soybean cyst nematode (SCN) is a major yield-reducing pathogen of soybean and is widespread throughout much of the upper Midwest, including Minnesota. The resistance currently contained in more than 95% of soybean varieties available to farmers in this region of the country has been used for three decades and, consequentially, has lost much of its effectiveness because SCN populations in farmers' fields have built up the ability to reproduce on this type of resistance. Reproduction by the nematode results in increases in SCN numbers in the soil and increases in yield loss. Also, SCN reproduction in fields where soybeans were grown in 2021 likely was much greater than normal in areas that experienced hot, dry growing conditions. This presentation will include information on the current situation with SCN and a real discussion of prospects for control of the pest in future years.

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Educational Tracks

1:00 & 3:15 pm **SHARED SESSION**
**Water contamination from chloride
in fertilizer, a real concern**

Carolyn Dindorf, Fortin Consulting, Inc.

Chloride is a more recently recognized pollutant of concern in many states. In Minnesota, 50 lakes and stream reaches are impaired for chloride, 30% of shallow monitoring wells exceed the secondary health standard and chloride is on the rise in many other waters. Chloride is toxic to aquatic life, can contaminate groundwater and has additional environmental impacts. Fertilizer has recently been identified as a source of chloride contributing to chloride impairments. How much does fertilizer contribute? What are the sources of chloride and how does chloride impact our waters?

Is it real? A simple approach to analyze split planter data

Jochum Wiersma, University of Minnesota

On-farm, whole-field research is becoming simpler to conduct with precision agriculture technologies and offers the opportunity to replicate and validate small plot research findings across whole fields. The challenge of conducting this scale of research is often not the collection of data but adhering to principles of experimental design, including replication, randomization and blocking. To compare a single factor at two different levels - such as determining which of two hybrids is higher yielding – I will demonstrate a post-hoc randomization scheme for split planter yield data and the use of the student's t-test for analysis. The advantage of the proposed method is its simplicity and usefulness for producers and the research community alike. The ability to create and use a greater number of replications compared to small plot research also ensures that the power of the statistical analysis is much greater than comparable small plot research with three or four replications.

1:55 & 4:10 pm **Getting real results with on-farm
research**

Elizabeth Hawkins, Ohio State University

Conducting on-farm research can add value to your business and your customers operations but getting high quality and meaningful results can be a challenge. This session will cover the benefits and challenges of conducting on-farm research, as well as best practices for designing, analyzing and sharing results.

3:15 & 4:10 pm **Managing the unpredictable:
Off-the-shelf strategies for IDC
management**

Seth Naeve, University of Minnesota

Iron Deficiency Chlorosis is an exceedingly complicated, confounding and unpredictable production issue for soybean production in Western Minnesota. Planning for next year may be even more challenging with elevated residual N in many fields. Fortunately, we have very effective tools for battling this issue available to us. On the other hand, these tools come at some cost. Knowing what tools to utilize - where and when - largely provides the answer to this production issue. This session will focus on helping to provide a stepwise approach to planning for the unpredictable.

Concurrent Session I

December 9th **Room: Orchestra Ballroom**

8:00 & 11:10 am **Improving fertilizer ROI with 4R
management**

Jeff Vetsch, University of Minnesota

High fertilizer prices and supply chain issues have many ag advisors concerned about the future. This presentation will detail how 4R fertilizer management can improve return on investment. Research on P and K critical values, fertilizer placement, nutrient sources and optimum rates will be highlighted. Can I reduce fertilizer rates at high soil test levels or with band placement? What are the best fertilizer sources? Does application timing make a difference? How fast do soil test values decline if I don't apply P or K fertilizer? These questions will be answered in this session.

8:55 am & 12:30 pm **Are all forms of sulfur created
equal?**

Daniel Kaiser, University of Minnesota

Choosing a form of sulfur which will provide plant available sulfate while reducing the risk that sulfate will be leached can be challenging. Data generated in Minnesota indicates that not all forms of sulfur are equal, and farmers need to consider the path which sulfur becomes available when choosing a form of sulfur to apply to their field. Corn and alfalfa yield data will be discussed comparing sulfate and elemental sulfur fertilizer products and challenges for each to maintain available sulfur, as well as discuss how different soils in Minnesota vary in their ability to supply sulfur to crops.

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Educational Tracks

10:15 am & 1:25 pm **SHARED SESSION**
The real story of grain yield vs. nitrate leaching with kura clover and winter rye in irrigated corn and soybean cropping systems

Fabian Fernandez, University of Minnesota

Cover crops can serve to mitigate nitrate leaching from corn and soybean fields. Our objective was to determine the capacity of winter rye and kura clover in reducing nitrate leaching from a strip-still, irrigated, sandy soil with long-term (since 2011) continuous corn (CC) and corn-soybean rotations (CSb and SbC) in west-central Minnesota. Rye was planted in the fall and terminated the following spring and kura clover was inter-cropped as a living mulch and chemically suppressed in the spring. Agrotain (urea with a urease inhibitor) was applied at total rates of 0, 90, 180, 220 and 270 lb N/ac in three split-applications. Nitrate load was calculated as the product of concentrations in water leached below the root zone measured weekly with lysimeters and drainage estimated by water balance. Across four seasons for all cropping systems, kura clover reduced nitrate leaching by 74% whereas rye had no effect, possibly due to inconsistent establishment. Similar results were observed for average season-long nitrate concentrations. While corn yield at the economic optimum N rate (EONR) and soybean yield were similar between rye and no-rye, rye required additional N for corn to achieve the EONR. Compared to rye and no-rye, kura clover reduced yield by 36% in CC, 38% in CSb and 19% in SbC. While kura clover can mitigate nitrate leaching, the large reduction in grain yield, likely caused by competition for N, represents a major issue deserving further research before these covers can be widely adopted in farmer fields.

Irrigation management for agricultural crop production in Minnesota: The progress and the path forward

Vasudha Sharma, University of Minnesota

With increasing pressure on water resources and declining water quality, limited irrigation management practices have a potential in reducing the nitrate leaching but it could also alter the N uptake by the crop. Will reduction in irrigation rates (using limited irrigation management) reduce the N fertilizer requirement and thus nitrate leaching? What is the best irrigation and nitrogen management combination practice that will maintain optimum crop yields while reducing nitrate leaching? Our goal with this research is to answer these questions and develop research-based irrigation and N

management data, information and fundamental relationships that will help farmers and crop consultants to make better on-farm management decisions. Field plot experiments are being conducted at the Sand Plain Research Farm (SPRF) in Becker, Minnesota, and Herman Rosholt farm in Westport, Minnesota. Four (4) irrigation treatments and six (6) N rate treatments are being evaluated and replicated four (4) times. The irrigation treatments are: full irrigation (FI), i.e., imposing no water stress on the crop, 75% of FI, 50% of FI and rainfed conditions. The N application rates are 0, 70, 140, 210, 280 and 350 lb/ac.

Concurrent Session II

December 9th

Room: Marquette Ballroom

8:00 & 11:10 am **Challenges and opportunities for reducing nitrate in water**

Matt Helmers, Iowa State University

This presentation will highlight results from long-term studies quantifying the impacts of nitrogen management and cropping systems on nitrate-N loss in drainage. Opportunities for reducing N loss with 4R nitrogen management and cover crops will be highlighted. In addition, edge-of-field practices that have potential to reduce downstream nitrate-N delivery will be discussed.

8:55 am & 12:30 pm **Soil health practices and soil carbon: What's possible in Minnesota?**

Anna Cates, University of Minnesota

Cates will cover soil health principles, and how they're anticipated to change soil carbon levels based on long term research in the Upper Midwest. This will include expected effects of reduced tillage, cover crops and conversion to pasture, and a bit about the potential for C credit generation. She'll also discuss co-benefits of soil health practices and soil carbon, like changes in soil water behavior.

10:15 am & 1:25 pm **Best management practices for manure: Are they worth it?**

Melissa Wilson, University of Minnesota

What does the latest research say on best management practices for livestock manure application? When it comes to soil fertility, which practices are worth the time and effort and under what circumstances? This presentation will cover some of the latest research in Minnesota, including use of cover crops, nitrification inhibitors and different application timing.

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Educational Tracks

Concurrent Session III

December 9th

Room: Conrad

8:00 am & 1:25 pm Tar spot of corn - real management options

Martin Chilvers, Michigan State University

Tar spot of corn continues to spread across the Midwest and has resulted in significant yield losses in disease conducive years. Tar spot is caused by the obligate fungal pathogen *Phyllachora maydis*. In our discussion of tar spot we will examine the role of environment and agronomic decisions on the epidemiology and management of tar spot, as well as discussion on the importance of hybrid selection, fungicide timing and product choice.

8:55 & 11:10 am Crop protection product use updates for 2022 from the Minnesota Department of Agriculture

Josh Stamper, Minnesota Department of Agriculture

What is a Pesticide of Concern? Why do we have BMPs? Record keeping seems burdensome in Minnesota. Isn't following the label enough? Why can't I use growth regulator herbicides in soybeans when weed control is timely even in a late spring? Who cares if a little overspray gets in a ditch or trees at the edge of a field? If you have ever asked these questions, this is the session for you.

You will get a fast-paced overview of how federal and state laws impact registrants, dealers, farmers, applicators, and the public. You will understand how state and federal law directs MDA to carry out the rules governing pesticide use. You'll learn how agencies develop Best Management Practices, and what happens if those BMP's are not followed or are proven ineffective.

We will also cover the 'usual suspects' when it comes to hard to manage chemistry, and how you, as CCA's, applicators, and retailers, can be part of the solution so that we can continue to have a broad, effective suite of crop protection products in the future.

10:15 am & 12:30 pm Climate conditions update for Minnesota: Observations, trends, and outlooks

Kenneth Blumenfeld, Minnesota Department of Natural Resources

This presentation provides an overview of recent and current climate conditions in Minnesota, including the drought of 2021, with a look at seasonal outlooks and longer-term trends of interest to the agricultural community.

Concurrent Session IV

December 9th

Room: Symphony Ballroom

8:00 am & 1:25 pm Maximizing the profitability of soybean production under white mold pressure

Michael Wunsch, North Dakota State University

This presentation will give a comprehensive review of extensive white mold management research conducted in eastern and central North Dakota over the last decade. The factors influencing white mold risk will be reviewed and concise data summaries will be presented to facilitate improved decision-making for (1) optimizing seeding rate and row spacing for maximum soybean agronomic performance under white mold pressure, (2) optimizing fungicide application timing for improved white mold management, (3) optimizing fungicide spray droplet size relative to canopy characteristics for improved white mold management, and (4) determining when one versus two sequential fungicide applications are likely to be most profitable.

Results from multi-location, multi-year studies indicate that optimal row spacing is contingent on white mold pressure, that seeding rate only influences white mold levels when the earlier canopy closure associated with a higher seeding rate occurs during a period of weather favorable for white mold, that yield gains from fungicides can be increased 50-100% by optimizing fungicide application timing, that yield gains from fungicides can be increased an additional 50-100% by optimizing fungicide spray droplet size relative to canopy characteristics, and that two sequential fungicide applications can be more profitable than a single application when conditions favorable for white mold persist through bloom and soybean maturity is mid-0 or longer.

8:55 & 11:10 am Drought tolerance and drought timing in corn

Jeff Coulter, University of Minnesota

Drought is one of the most important yield-limiting factors for corn. In the U.S. Corn Belt, moderate drought regularly occurs during the mid- to late reproductive stages of corn, and sometimes during pollination or the vegetative stages of corn. Increased availability of drought-tolerant hybrids provides growers with a relatively new opportunity to mitigate drought stress in corn. This session will help participants better understand how drought-tolerant and standard corn hybrids respond to different timings of drought under contrasting agronomic scenarios, enabling improved agronomic decisions when dry growing conditions are anticipated.

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Educational Tracks

10:15 am & 1:25 pm **Getting 'real' about planting:
Planter setup and precision
agriculture components for
optimal emergence**

Brian Luck, University of Wisconsin – Madison

Planting is arguably the most important operation we perform on grain production farms every year. There are a lot of planter upgrades like hydraulic down force, aftermarket closing wheels and variable rate seeding that can assist in achieving accurate seeding depth, seed to soil contact and furrow closure. At the University of Wisconsin-Madison Badger Ag. Tech. Lab we have investigated variable row unit downforce and aftermarket closing wheels. We have also been investigating best management practices for planting into high residue no-till production systems. Results from these studies will be presented in this session.

Ice Breaker Reception **Starting at 3:00 PM**

Grand Ballroom Show Floor (3rd level)
Tuesday, December 7th
Starting at 3:00 PM until 6:30 PM

Drink tickets can be purchased at the registration counter (otherwise cash bar). Complimentary appetizers.

Come and Celebrate!

Biographical Sketch

Judy Barka

Judy Barka is the Assistant Director of AgCentric, the Northern Agricultural Center of Excellence. She lives on a family farm in Forest City, MN with her husband Randy and enjoys having her 4 kids and 7 grandchildren close by. Judy has worked in a variety of industries, but has always been a strong spokesperson for agriculture. She has been with AgCentric for 6 years and really has a knack for connecting with others. Judy is energized by helping students discover their potential in the Agriculture, Food and Natural Resources industry.

Kenny Blumenfeld

Dr. Kenneth ("Kenny") Blumenfeld is a climate scientist who grew up in Minneapolis with a love for storms, blizzards, and being outside. He works for the Minnesota State Climatology Office (Department of Natural Resources), where he provides the state's agencies, communities, and citizens with up-to-date scientific information about Minnesota's changing and variable climate. Kenny enjoys talking to Minnesotans about their weather, and often does it long after the work day is done.

Anna Cates

Anna Cates is the state soil health specialist with UMN Extension and the MN Office for Soil Health, and an Assistant Professor in the Department of Soil, Water, and Climate. She studies soil organic matter, soil function, and conservation cropping systems out of her lab in St. Paul. Her outreach across MN focuses on increasing capacity of local staff to promote and support soil health practices in row crops. Cates holds an MS in Soil Science and Agroecology, and a PhD in Agronomy, from University of Wisconsin-Madison.

Martin Chilvers

Martin (Marty) Chilvers earned his Bachelor's of Agricultural Science degree with honors and Ph.D. from the University of Tasmania, Australia, with subsequent Post-doctoral training at Washington State University. Dr. Chilvers' began his position with Michigan State University in 2008 where he leads a field crop pathology program encompassing both basic and applied research, with current emphasis on seedling and root rot diseases Pythium and Phytophthora, soybean sudden death syndrome, white mold and tar spot of corn.

Jeff Coulter

Jeff Coulter is a Professor and Extension Specialist of corn-based cropping systems at the University of Minnesota. He has a Ph.D. in Crop Sciences from the University of Illinois. Dr. Coulter conducts agronomic extension and research to increase the productivity, profitability, and sustainability of corn production. His field research is conducted at university

research and outreach centers and on farms. This serves as the foundation for educational programs for agricultural professionals and farmers.

Carolyn Dindorf

Carolyn Dindorf is a limnologist and Vice President of Fortin Consulting where she has worked for the past 18 years. She holds a Master's degree in biology with a limnology emphasis from St. Cloud State University. With the help of turfgrass and environmental experts, Carolyn and Fortin Consulting staff have been working on understanding the impacts of chloride on our waters and promoting the use of best management practices to reduce chloride use. Fortin Consulting's work initially focused on road salt, but has expanded to other chloride sources, including fertilizers. Carolyn has been training contractors, city staff and property managers on practices to reduce environmental impacts from turfgrass maintenance and winter maintenance for the past 16 years. She has coauthored books and manuals and has written four pesticide applicator manuals for the MN Department of Agriculture and UMN Extension.

Fabián Fernández

Dr. Fabián G. Fernández is an Associate Professor in the Department of Soil, Water, and Climate at the University of Minnesota, Twin Cities. Fernández was born and raised in the Pampas region of Argentina. He earned his Ph.D. degree from Purdue University in 2006, and M.S. and B.S. degrees from Brigham Young University in 2002 and 2000, respectively. The research and extension education programs of Dr. Fernández focus on soil nutrient management and plant mineral nutrition. His current work at the University of Minnesota concentrates primarily on environmental issues related to nutrient management for corn cropping systems. He seeks to identify and implement nitrogen management practices that are sustainable in terms of both minimizing negative environmental impacts, specifically on water quality, and improving crop yields. Fernández graduated 4 Ph.D. and 11 M.S. students and is currently advising 2 Ph.D. and 1 M.S. students. He is an associate editor for Soil Science Society of America Journal, has published more than 60 peer-reviewed journal articles, co-authored 3 book chapters, over 50 proceedings papers, more than 130 abstracts for scientific conferences, over 160 extension publications and research reports, and hundreds of local, national and international presentations.

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Biographical Sketch

Anthony Hanson

Dr. Anthony Hanson is an entomologist and Regional Extension Educator with University of Minnesota Extension based out of Morris, MN. He focuses on Integrated Pest Management (IPM) in field crops to provide tactics growers can use to make sound economic and environmentally relevant pest management decisions. He grew up farming near Brooten, MN raising beef cattle, corn, soybeans, and alfalfa and is still actively involved in the family farm. He also provides updates on pest management as the host of the University of Minnesota IPM Podcast for Field Crops.

Elizabeth Hawkins

Elizabeth's research interests include using on-farm research to identify methods to increase farm profits including improved crop yields, better management of resources, and the employment of effective precision agriculture technologies. She is using on-farm research to better understand how to make precision technologies like site-specific and prescriptive agriculture work, both agronomically and economically.

Matthew Helmers

Matt Helmers is the Director of the Iowa Nutrient Research Center, the Dean's Professor in the College of Agriculture and Life Sciences, and a Professor in the Department of Agricultural and Biosystems Engineering at Iowa State University, where he has been on the faculty since 2003. Dr. Helmers' research areas include studies on the impact of nutrient management, cropping practices, drainage design and management, and strategic placement of buffer systems on nutrient export from agricultural landscapes. He has a regional Extension program working to increase adoption of practices that have the potential to reduce downstream nutrient export.

Erin Hodgson

Erin Hodgson is originally from North Dakota and received her B.S. (Biology) and M.S. (Entomology) from North Dakota State University in Fargo. She got her Ph.D. (Entomology) in 2005 from the University of Minnesota in St. Paul where she worked on soybean aphid. Erin worked for three years at Utah State University before starting at Iowa State University in 2009. Currently, she is an extension entomologist and professor at ISU, with a specialty in field crop insects. Erin has a general background in integrated pest management, where she develops tactics to improve corn and soybean production in the Midwest. Her extension and research programs are focused on improving profitability, sustainability and environmental stewardship of agriculture. Erin enjoys communicating with social media (e.g., Twitter, videos, and podcasting) to reach stakeholders and share research-based management recommendations.

Dale Johnson

Dale Johnson serves as the Senior Operations Manager of Ag Partners, a grain and ag supply cooperative serving approximately 7,000 customers in Southeastern Minnesota and Western Wisconsin. He has been with the cooperative for 27 years serving in several different departments including feed, agronomy, petroleum, LP gas and grain. Dale and AgPartners are involved in a number of partnerships that help them serve their customers better, including Kenyon Ag Service, Red Wing Grain, Western Wisconsin Ag Supply, and Western Wisconsin Nutrition. Dale serves on the MCPR Board of Directors and is the immediate past Chairman of the association. In his free time, he enjoys spending time with his family, as well as hunting, fishing, and golfing. He graduated from the University of Wisconsin-River Falls, where he studied soils science and agronomy.

Dan Kaiser

Daniel Kaiser in an associate professor in the department of Soil, Water, and Climate is the current state extension specialist in soil and plant nutrient management at the University of Minnesota. He received his M.S. and Ph.D. degree from Iowa State University. His current research in Minnesota focuses on developing research and extension programming related to soil testing and fertilizer management for the development of fertilizer guidelines for major field crops in Minnesota.

Adam Kiel

Adam Kiel is the Executive Vice President of AgOutcomes. In this role, Adam co-administers the Soil and Water Outcomes Fund, an innovative carbon and water quality ecosystem service program serving farmers in ten states. Adam has over 20 years of experience in the field and has held prior roles with the Iowa Soybean Association, Iowa Department of Natural Resources, and National Park Service.

Josh Linville

Josh Linville is the Director of Fertilizer for StoneX Financial Inc. – FCM Division. Having grown up in Northwest Missouri on a family farm that raised row crops, tobacco and livestock, Josh brings a unique point of view to the fertilizer markets. With 20 years of experience in the fertilizer industry, Josh has operated in roles that have given him perspective on the market as a North American logistics specialist, a U.S.-based nitrogen producer, and General Manager of Trade in Melbourne Australia. Josh and his team, which spans around the world, have been hard at work educating the market on how to use fertilizer futures markets to not only offset price risk but

(continued on next page)

Biographical Sketch

also be able to sell products to farmers well before fertilizer producers release their physical sales programs.

Brian Luck

Dr. Brian Luck is an associate professor and extension specialist in the Biological Systems Engineering Department at the University of Wisconsin-Madison. Dr. Luck's research and extension program is focused on precision agriculture including machine management, variable rate technology, planter technology, and remote sensing.

Seth Naeve

Dr. Seth Naeve is a Soybean Agronomist with the University of Minnesota and is an Associate Professor in the Department of Agronomy and Plant Genetics. His effort is split between a soybean production/physiology research project and his soybean extension activities. These activities are centered in the North central region of the US, and more specifically in the state of Minnesota.

Dr. Naeve's research program focuses on development of novel strategies for the efficient production of high quality soybean. His research effort is split between analyzing genetic, environmental, and cultural effects on soybean seed quality (oil, protein, fatty acid, amino acid, and carbohydrate composition) and researching management strategies to maximize production efficiencies.

Seth was raised on a corn and soybean farm in Northern Iowa, and received his Bachelor's degree in Biology and PhD in Agronomy (Crop Production and Physiology) from Iowa State University.

Keith Olander

Keith Olander is the Executive Director of AgCentric, (a MN State Agricultural Center of Excellence). He also oversees strategic agricultural partnerships at Central Lakes College as a Dean of Agricultural Studies.

As Executive Director of AgCentric, Keith's major responsibilities are to augment the capacity and enrollment in comprehensive agricultural education from K-12, through post-secondary to industry. Workforce development includes building partnerships, developing seamless educational pathways, and informing audiences of the agricultural web that surrounds every person who enjoys a good meal and an environment that is sustainable. Directing the work of Minnesota Farm Business Management is also a major part of his role for Minnesota State Colleges and Universities with 66 faculty at 8 colleges with nearly 3,000 students (farmers). A key component of this program is farmer well-being and rural mental health.

Keith is married with 3 children and they reside in rural Staples. Keith owns and operates a 450 acre crop farm consisting predominantly of a corn and soybean rotation along with a family sized garden. Faith, family, and his passion for agriculture consume his schedule.

Ken Ostlie

How does a young farm boy from Montevideo, MN become interested in entomology? Ken says there's plenty of blame to go around! Start with parents interested in the outdoors and conservation, 4-H, intriguing professors in biology at Luther College in Decorah, IA and work on a M.S. degree focusing on insects in range ecology at Utah State University. While contemplating a Ph.D. degree, Ken decided to blend his interests in farming with his fascination with the destructive impacts of insects on plants. The result was a Ph.D. in entomology from Iowa State University in 1984. While at ISU, Ken definitely decided he didn't like corn rootworms and focused on soybean insects. After 37 years of working on both corn and soybean insects at the University of Minnesota, you'd think he'd be bored ... but ... each year brings a new twist, new challenges and new technology. Ken just wishes he'd learned the lesson better in grad school about avoiding corn rootworms!! However, the time to retire from a full-time extension entomologist has arrived.

Bryon Parman

I am originally from a large corn, cattle and hog farm in Southwestern Nebraska. I spent 6 years in the Navy including two deployments where my job was as a search and rescue swimmer. I received my Ph.D. in Agricultural Economics from Kansas State University in 2013 where I focused on agricultural production and farm efficiency. Currently am the State Agricultural Finance Specialist with North Dakota State University where I have been for 3.5 years. Before that I was in a similar role at Mississippi State University. In my current role I look at issues facing agriculture such as production costs, efficiency, financial performance, budgets, and land values/rents. My areas includes both crop and livestock production where I work with agricultural lenders, producers, agribusinesses, policy makers, and extension educators.

Collin Peterson

Congressman Collin C. Peterson represented Minnesota's Seventh District from 1991 to 2021. He served as Chairman and Ranking Member of the U.S. House Agriculture Committee from 2005 to 2021 and was instrumental in writing and passing four farm bills. He is a nationally recognized expert on

(continued on next page)

Biographical Sketch

agriculture policy and has a strong reputation for his steadfast commitment to bringing everyone to the table while offering positive and practical solutions to difficult problems.

Congressman Peterson grew up on a farm near Moorhead, Minnesota and was active in 4H, high school music and sporting activities, and working on the farm. He earned a BA in Accounting and Business Administration from Minnesota State University Moorhead, served in the National Guard, and went on to become a Certified Public Accountant in Detroit Lakes, Minnesota. He was elected to the Minnesota State Senate in 1976 and served for 10 years with a focus on the agriculture and tax committees.

Mr. Peterson is currently President and founder of his government affairs and public policy firm, The Peterson Group. He also has a partnership with Combest Sell and Associates in Washington D.C. to advise and consult on policies that bolster U.S. agriculture and rural America.

Bruce Potter

Bruce Potter received a B.S. (1979) and M.S. (1984) in Entomology from the University of Minnesota. Since 1997, he has served as an Extension Integrated Pest Management (IPM) specialist at the University of Minnesota Southwest Research and Outreach Center at Lamberton, MN.

His current research and extension efforts focus on the management of corn and soybean pests.

Abby Reiner

Abby Reiner has been around agriculture her whole life. The foundation of her passion for the industry started by growing up on her parent's cow/calf operation and being involved with a variety of agricultural-based organizations. She currently is a Marketing Communications Specialist at Heartland AG Systems in Hutchinson, Minnesota. Abby graduated from South Dakota State University with a Bachelors degree of Science in Agricultural Communications and Animal Science. While in college at South Dakota State, Abby held four diverse internships that gave her experience in several different areas of agriculture including 4-H Extension, Agronomy, AFNR Extension, and Marketing. After her marketing internship at Heartland AG Systems, Abby was promoted to a full-time employee. In her current position she manages trade shows, branding, social media, and digital content.

Vasudha Sharma

Dr. Vasudha Sharma is Assistant Extension Professor-Irrigation Specialist in the Department of Soil, Water and Climate and Department of Bioproducts and Biosystems Engineering at the University of Minnesota. She earned her M.S. and Ph.D.

degrees in Biosystems Engineering from the University of Nebraska-Lincoln in 2014 and 2018, respectively. Dr. Sharma's research experience includes soil and water resources and irrigation engineering, crop growth and development, evapotranspiration (ET) measurements, soil-crop water dynamics, and water-scheduling techniques and management. Her current work focusses on developing irrigation water management research and extension education programs to address the issues of water shortages and water quality. The main objectives of her program are to (i) collaborate with crop irrigators and water managers to assess educational and research needs, (ii) conduct applied research on irrigation to evaluate and identify the best irrigation management practices that would enhance crop water productivity and reduce environmental impacts, and (iii) deliver scientific knowledge to the irrigators through demonstration research throughout the state.

Arnie Sinclair

Arnie Sinclair serves as the President of Heartland AG Systems. He has spent his entire career in agricultural sales and marketing. He has 11 years of experience working in ag retail, holding several positions including Agronomy Manager for Harvestland Co-op. In 1993, he joined Ag Chem Equipment company, and held many management-level jobs there including Senior Product Manager for RoGator and Terra Gator products. In 2001, AGCO purchased Ag Chem Equipment Company. While at AGCO, Arnie held several management roles within the Application Equipment Division including Sales Manager, Director of Marketing for North America, Director of Sales for North America, and Director of National Accounts. Arnie was hired as General Manager of AG Systems, Inc. in 2014. In March of 2019, following the merger with Heartland Ag, Arnie was promoted to President of Heartland AG Systems. Arnie graduated from the University of Minnesota, where he studied Business, Sales and Marketing.

Josh Stamper

Joshua Stamper was raised on a small, diversified farm in NW North Carolina. He has a BS in Agriculture from Berea College in Kentucky and a MS in Agronomy from Kansas State University. Joshua was a farm manager, agronomist, scientist, and extension agent and extension specialist before assuming the role as Pesticide and Fertilizer Management Division Director for the Minnesota Department of Agriculture. He is constantly asking his staff, "how do we make this suck less?"

(continued on next page)

Biographical Sketch

Greg Tylka

Greg Tylka was born and raised in southwestern Pennsylvania and earned BS and MS degrees in biology at California University of Pennsylvania. Tylka earned his PhD degree in plant pathology from the University of Georgia in 1990 and has been a faculty member in the Department of Plant Pathology and Microbiology at Iowa State University ever since. Tylka's research and extension efforts at Iowa State focus primarily on the biology and management of the soybean cyst nematode (SCN). Tylka also serves as the founding director of the Iowa Soybean Research Center in the College of Agriculture and Life Sciences at Iowa State. The center is a partnership among the university, the Iowa Soybean Association, and private industry that seeks input and guidance on soybean production research needs from soybean farmers and the soybean industry and pursues funding from private industry to leverage soybean checkoff funds to support soybean research at Iowa State.

Jeff Vetsch

Vetsch manages soil science research at the University of Minnesota, Southern Research and Outreach Center in Waseca. He conducts applied research in the areas of nutrient management, water quality and cropping systems, primarily in corn and soybean. His research emphasis is on nitrogen management in corn. Jeff earned his BS and MS degrees from the University of Minnesota and he is a Certified Professional Soil Scientist. He received the researcher of the year award from the Fluid Fertilizer Foundation in 2013. He has authored 21 refereed publications and eight extension publications. During the last 10 years, he has given 275 professional and extension presentations to more than 14,000 attendees.

Rodrigo Werle

Dr. Rodrigo Werle joined UW-Madison in January of 2018 as an Assistant Professor and Extension Cropping Systems Weed Scientist. His research and Extension activities are related to weed management in corn, soybeans and small grains. Rodrigo received his BS in Agronomy at São Paulo State University, Brazil, and MS and PhD in Agronomy with Specialization in Weed Science from the University of Nebraska-Lincoln. Prior to joining UW-Madison, Rodrigo served for two years as an Assistant Professor and Cropping Systems Specialist at the University of Nebraska-Lincoln West Central Research and Extension Center.

Jochum Wiersma

Dr. Wiersma is Extension Professor and Small Grains Specialist at the University of Minnesota. As extension specialist, he has conducted both small plot and large-scale on-farm research. Developing tools for producers to their improve decision making is one of his research interest.

Melissa Wilson

Melissa Wilson is an assistant professor and the manure nutrient management specialist at the University of Minnesota with appointments in both research and extension. Her research focuses on filling knowledge gaps about manure nutrient cycling as farming practices, weather, and technologies change. She is also currently evaluating techniques for opening up the window of opportunity for manure application.

Michael Wunsch

Dr. Michael Wunsch is a plant pathologist with North Dakota State University's Carrington Research Extension Center. His research and outreach efforts are primarily focused on addressing disease management problems in broadleaf crops grown in North Dakota, with an emphasis on improving the management of white mold in dry edible beans, soybeans, and sunflowers and improving the management of root and foliar diseases of field peas, chickpeas, and lentils. Michael obtained his B.S. from the University of Missouri and his Ph.D. from Cornell University, and he commenced his employment with the NDSU research center in Carrington in 2010. Michael is originally from Montana.

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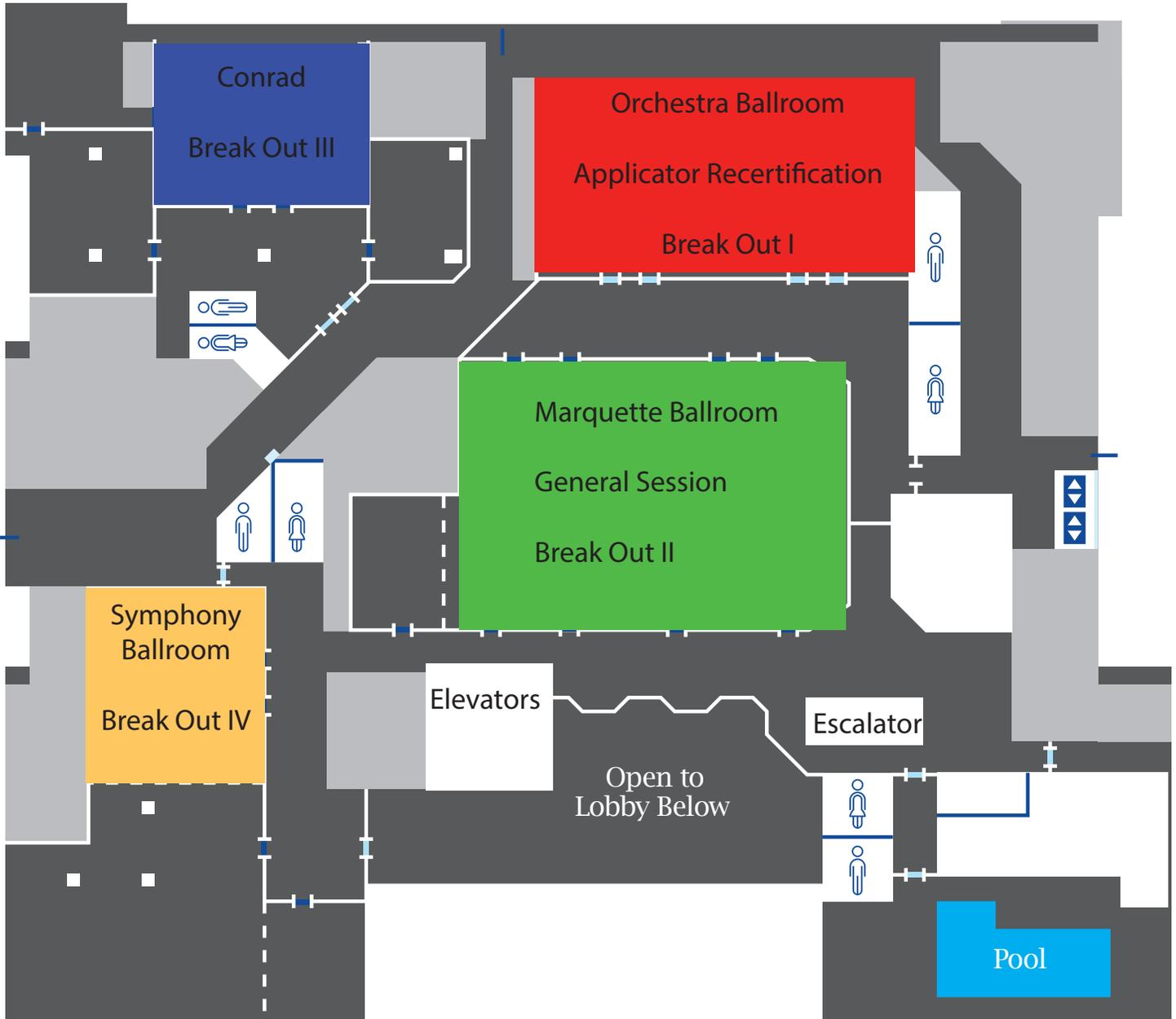
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Hotel Floor Map

Second Level



FLOOR MAP KEY

- Applicator Recertification/Break Out I
- General Session/Break Out II
- Break Out III
- Break Out IV

Schedule at a Glance

Tuesday, December 7, 2021

REGISTRATION OPENS AT 9:00 AM - THIRD LEVEL OF MINNEAPOLIS HILTON HOTEL				
	PESTICIDE APPLICATOR RECERTIFICATION ORCHESTRA BALLROOM	MCPR PLENARY SESSION MARQUETTE BALLROOM	TECHNICAL SERVICE PROVIDER TRAINING SYMPHONY BALLROOM	TRADE SHOW MINNEAPOLIS GRAND BALLROOM 3rd Floor
10:00			<p style="text-align: center;">NRCS TSP Updates</p> <p style="text-align: center;"><i>Shannon Carpenter and Jeff King, USDA-NRCS</i></p>	
11:00				
12:00			<p style="text-align: center;">LUNCH (ONLY FOR THOSE REGISTERED FOR TECHNICAL SERVICE PROVIDER TRAINING)</p>	
			<p style="text-align: center;">NRCS TSP Updates <i>Continued</i></p>	
1:00		<p style="text-align: center;">What's Next for Farm Bill Programs?</p> <p style="text-align: center;"><i>Collin Peterson The Peterson Group</i></p> <p style="text-align: center;">CEU= 1 PD</p>		
1:45		<p style="text-align: center;">Are fertilizer prices heading toward record highs due to a series of black swan events?</p> <p style="text-align: center;"><i>Josh Linville, StoneX Financial Inc - FCM Division</i></p> <p style="text-align: center;">CEU=1 PD</p>		
2:00	<p style="text-align: center;">Comparison of Seed Treatment Labels and Interactive Quiz</p> <p style="text-align: center;"><i>Jolene Hendrix, UMN</i></p>			
2:30		<p style="text-align: center;">Is the Struggle for Workforce Talent Here to Stay?</p> <p style="text-align: center;"><i>Panelists are Judy Barka & Keith Olander, AgCentric; Arnie Sinclair & Abby Reiner, Heartland Ag; Dale Johnson, Aa Partners</i></p> <p style="text-align: center;">CEU=1 PD</p>		
2:45	<p style="text-align: center;">Syngenta Stewardship Program- Seed treatment Safety, Disposal Practices</p> <p style="text-align: center;"><i>Augustine Beeman and John Wells, Syngenta</i></p>			
3:00				<p>Exhibit Hall Opens - Ice Breaker Reception</p>
4:00	<p style="text-align: center;">Label Exercise Group Activity</p> <p style="text-align: center;"><i>Jolene Hendrix, UMN</i></p>			<p>MCPR Annual Meeting</p>
4:45				
5:00				
6:30				<p>Exhibit Hall Closes</p>

Schedule at a Glance

Wednesday, December 8, 2021

REGISTRATION OPENS AT 7:00 AM - THIRD LEVEL OF MINNEAPOLIS HILTON HOTEL					
	PESTICIDE APPLICATOR RECERTIFICATION ORCHESTRA BALLROOM	GENERAL SESSION CROP PEST MANAGEMENT SHORT COURSE MARQUETTE BALLROOM			MCPR TRADE SHOW
8:00		Recruitment strategies in a post-pandemic world <i>Mark Waschek, Ag 1 Source, Professional Recruitment Firm</i>			EXHIBIT HALL OPENS
8:30	Compulsory Training Category A	CEU=PD			
		Growing and selling carbon credits in US agriculture: How will this effect Minnesota farmers? <i>Adam Kiel, Soil and Water Outcomes Fund</i>			
	BREAK	CEU=SW			
9:40	Compulsory Training Category A	BREAK			
		Outlook for crop input and commodity prices in 2022 <i>Bryon Parman, North Dakota State University</i>			
		CEU=PD			
11:00	BREAK AND OPPORTUNITY TO VISIT EXHIBIT FLOOR				
12:00	LUNCH				
	CONCURRENT SESSION I ORCHESTRA BALLROOM	CONCURRENT SESSION II MARQUETTE BALLROOM	CONCURRENT SESSION III CONRAD	CONCURRENT SESSION IV SYMPHONY BALLROOM	
1:00	Let's get real about soybean insecticides: What's in and what works <i>Erin Hodgson</i> <i>Iowa State University</i> CEU= 1 PM	A simple (?) conversation about corn rootworms, drought and management success in 2021 <i>Ken Ostlie and Bruce Potter</i> <i>University of Minnesota</i> CEU= 1 PM	The soybean cyst nematode, a very real threat to profitable soybean production in the future <i>Greg Tylka</i> <i>Iowa State University</i> CEU= 1 PM	Water contamination from chloride in fertilizer, a real concern <i>Carolyn Dindorf, Fortin Consultina, Inc.</i> CEU = .5 CM Is it real? A simple approach to analyze split planter data <i>Jochum Wiersma, UMN</i> CEU = .5 CM	
1:55	A simple (?) conversation about corn rootworms, drought and management success in 2021 <i>Ken Ostlie and Bruce Potter</i> <i>University of Minnesota</i> CEU= 1 PM	Let's get real about soybean insecticides: What's in and what works <i>Erin Hodgson</i> <i>Iowa State University</i> CEU= 1 PM	Getting real results with on-farm research <i>Elizabeth Hawkins</i> <i>Ohio State University</i> CEU= 1 CM	The soybean cyst nematode, a very real threat to profitable soybean production in the future <i>Greg Tylka</i> <i>Iowa State University</i> CEU= 1 PM	
2:45	BREAK				
3:15	Are you PRE-pared for the 2022 weed management season? <i>Rodrigo Werle</i> <i>University of Wisconsin-Madison</i> CEU= 1 PM	Understanding, detecting, and managing sporadic and developing crop pest problems <i>Bruce Potter, UMN</i> CEU= .5 PM What problem insects are really lurking in your field? <i>Anthony Hanson, UMN</i> CEU= .5 PM	Water contamination from chloride in fertilizer, a real concern <i>Carolyn Dindorf, Fortin Consultina, Inc.</i> CEU = .5 SW Is it real? A simple approach to analyze split planter data <i>Jochum Wiersma, UMN</i> CEU = .5 CM	Managing the unpredictable: Off the-shelf strategies for IDC management <i>Seth Naeve</i> <i>University of Minnesota</i> CEU= 1 NM	
4:10	Understanding, detecting, and managing sporadic and developing crop pest problems <i>Bruce Potter, UMN</i> CEU= .5 PM What problem insects are really lurking in your field? <i>Anthony Hanson, UMN</i> CEU= .5 PM	Are you PRE-pared for the 2022 weed management season? <i>Rodrigo Werle</i> <i>University of Wisconsin-Madison</i> CEU= 1 PM	Managing the unpredictable: Off the-shelf strategies for IDC management <i>Seth Naeve</i> <i>University of Minnesota</i> CEU= 1 NM	Getting real results with on-farm research <i>Elizabeth Hawkins</i> <i>Ohio State University</i> CEU= 1 CM	
5:00	END				EXHIBIT HALL CLOSES

Schedule at a Glance

Thursday, December 9, 2021

REGISTRATION OPENS AT 7:00 AM - THIRD LEVEL OF MINNEAPOLIS HILTON HOTEL					
	CONCURRENT SESSION I ORCHESTRA BALLROOM	CONCURRENT SESSION II MARQUETTE BALLROOM	CONCURRENT SESSION III CONRAD	CONCURRENT SESSION IV SYMPHONY BALLROOM	MCPR TRADE SHOW
8:00	<p>Improving fertilizer ROI with 4R management</p> <p><i>Jeff Vetsch</i> University of Minnesota CEU = 1 NM</p>	<p>Challenges and opportunities for reducing nitrate in water</p> <p><i>Matt Helmers</i> Iowa State University CEU = 1 SW</p>	<p>Tar spot of corn – real management options</p> <p><i>Martin Chilvers</i> Michigan State University CEU = 1 PM</p>	<p>Maximizing the profitability of soybean production under white mold pressure</p> <p><i>Michael Wunsch</i> North Dakota State University CEU = 1 PM</p>	
8:55	<p>Are all forms of sulfur created equal?</p> <p><i>Daniel Kaiser</i> University of Minnesota CEU = 1 NM</p>	<p>Soil health practices and soil carbon: What's possible in Minnesota?</p> <p><i>Anna Cates</i> University of Minnesota CEU = 1 SW</p>	<p>Crop protection product use updates for 2022 from the Minnesota Department of Agriculture</p> <p><i>Josh Stamper</i> Minnesota Dept. of Ag CEU = 1 PM</p>	<p>Drought tolerance and drought timing in corn</p> <p><i>Jeff Coulter</i> University of Minnesota CEU = 1 CM</p>	EXHIBIT HALL OPENS
9:45	BREAK				
10:15	<p>The real story of grain yield vs. nitrate leaching with kura clover and winter rye in irrigated corn and soybean cropping systems <i>Fábian Fernández, UMN</i> CEU = .5 NM</p> <hr/> <p>Irrigation management for agricultural crop production in Minnesota: The progress and the path forward <i>Vasudha Sharma, UMN</i> CEU = .5 CM</p>	<p>Best management practices for manure: Are they worth it?</p> <p><i>Melissa Wilson</i> University of Minnesota CEU = 1 NM</p>	<p>Climate conditions update for Minnesota: Observations, trends, and outlooks</p> <p><i>Kenneth Blumenfeld</i> MN Dept. of Natural Resources CEU = 1 CM</p>	<p>Getting “real” about planting: Planter setup and precision agriculture components for optimal emergence</p> <p><i>Brian Luck</i> University of Wisconsin-Madison CEU = 1 CM</p>	EXHIBIT HALL CLOSSES
11:10	<p>Improving fertilizer ROI with 4R management</p> <p><i>Jeff Vetsch</i> University of Minnesota CEU = 1 NM</p>	<p>Challenges and opportunities for reducing nitrate in water</p> <p><i>Matt Helmers</i> Iowa State University CEU = 1 SW</p>	<p>Crop protection product use updates for 2022 from the Minnesota Department of Agriculture</p> <p><i>Josh Stamper</i> Minnesota Dept. of Ag CEU = 1 PM</p>	<p>Drought tolerance and drought timing in corn</p> <p><i>Jeff Coulter</i> University of Minnesota CEU = 1 CM</p>	
12:00	LUNCH				
12:30	<p>Are all forms of sulfur created equal?</p> <p><i>Daniel Kaiser</i> University of Minnesota CEU = 1 NM</p>	<p>Soil health practices and soil carbon: What's possible in Minnesota?</p> <p><i>Anna Cates</i> University of Minnesota CEU = 1 SW</p>	<p>Climate conditions update for Minnesota: Observations, trends, and outlooks</p> <p><i>Kenneth Blumenfeld</i> MN Dept. of Natural Resources CEU = 1 CM</p>	<p>Getting “real” about planting: Planter setup and precision agriculture components for optimal emergence</p> <p><i>Brian Luck</i> University of Wisconsin-Madison CEU = 1 CM</p>	
1:25	<p>The real story of grain yield vs. nitrate leaching with kura clover and winter rye in irrigated corn and soybean cropping systems <i>Fábian Fernández, UMN</i> CEU = .5 NM</p> <hr/> <p>Irrigation management for agricultural crop production in Minnesota: The progress and the path forward <i>Vasudha Sharma, UMN</i> CEU = .5 CM</p>	<p>Best management practices for manure: Are they worth it?</p> <p><i>Melissa Wilson</i> University of Minnesota CEU = 1 NM</p>	<p>Tar spot of corn – real management options</p> <p><i>Martin Chilvers</i> Michigan State University CEU = 1 PM</p>	<p>Maximizing the profitability of soybean production under white mold pressure</p> <p><i>Michael Wunsch</i> North Dakota State University CEU = 1 PM</p>	
2:20	END				

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Agra Liners manufactures and installs one-piece custom made PVC tank liners.

Agvise Laboratories Inc.

Booth: 211-213

Email: richardj@agvise.com

P: 320.843.4109

Web: www.agvise.com

Professional commitment to testing of soil, plant tissue, fertilizer, seed, feed, water, manure and SCN.

AgXplore International

Booth: 311-313

Email: mwhyte@agxplyre.com

P: 573.357.4506

Web: www.agxplyre.com

AgXplore manufactures and markets fertility management aids like NZONE and ContainN as well as nutritional products, micronutrients and adjuvants. Our products create and maintain healthy soils for healthy profits.

Arnold's

Booth: 411

Email: rlusk@arnoldsinc.com

P: 320.398.3810

Web: www.arnoldsinc.com

Arnolds sells and services the Nitro Sprayers and Miller Line of liquid and dry fertilizer applicators through 7 locations. We have 10 fully trained technicians and 18 service rigs, plus we offer 24 hour parts and service weekdays and weekends.

BASF Corporation

Booth: 512-514

Email: David.voller@basf.com

P: 919.624.7559

Web: www.basf.com

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility.

Bayer CropScience, LP

Booth: 317

Email: reed.froseth@bayer.com

P: 507.451.1355

Web: www.bayercropscience.us

Bayer is a global enterprise with core competencies in the Life Science fields of healthcare and agriculture. Bayer's Mission: Science For a Better Life. Come learn more about our newest innovations in seeds, traits, seed growth, crop protection and digital tools.

Calcium Products Incorporated

Booth: 608

Email: ritchie.schaefer@calciumproducts.com

P: 800.255.8196

Web: www.calciumproducts.com

Calcium Products manufactures and sells pelletized 98G limestone and S04 pelletized gypsum. Having been in business for 30 years, with recent staff additions, plant upgrades and improvements have continued to provide retailers in Minnesota.

CHS Agronomy

Booth: 706-708

Email: chris.johnson@chsinc.com

P: 507.327.9511

Web: www.chsinc.com

CHS is a diversified Fortune 100 company providing grain, food and energy resources to business and consumers. CHS Agronomy division supplies and markets Nitrogen, Phosphate, Potash products throughout the United States. Its corporate office is located in Inver Grove Heights, MN.

Continental NH3 Products

Booth: 312

Email: judd@continentalnh3.com

P: 214.741.6081

Web: www.continentalnh3.com

We manufacture a complete line of valves, fittings, meters and distribution devices for storage and application of anhydrous ammonia.

Corteva Agriscience

Booth: 604-606

Email: neil.trygestad@corteva.com

P: 507.381.1550

Web: www.corteva.com

Corteva Agriscience is the only major agriscience company completely dedicated to agriculture. We have harnessed agricultures brightest minds and expertise gained over two centuries of scientific achievement.

DAKK Liners

Booth: 310

Email: atucker@dakkliners.com

P: 405.395.3129

Web: www.dakkliners.com

DAKK Liners specializes in professional tank containment services nationwide, including tank liner installations, inspections, patching and repairs, tank liner cleaning, as well as tank retro-fits for liner installations.

Davis Equipment Corporation

Booth: 304-306-308

Email: jfunkhouser@davisequip.com

P: 800.736.3525

Web: www.davisequip.com

Davis Equipment is a distributor of dry, liquid and NH₃ fertilizer application blending and handling equipment. We represent AGCO/Willmar, Dalton Ag Products, Case/DMI, B+B Wagons, Doyle Equipment Mfg., GSI/ InterSystems Fertilizer Equipment, and related parts and accessories.

EuroChem North America Corp.

Booth: 701

Email: Marianne.Guenther@eurochemgroup.com

P: 918.496.5115

Web: www.eurochemgroup.com

One of the world's leading mineral fertilizer producers, delivering the full range of nutrients and driven by the world's increasing need for food.

FarmChem

Booth: 513

Email: chad.simonson@farmchem.com

P: 800.247.1854

Web: www.farmchem.com

FarmChem offers liquid handling equipment for liquid fertilizers and chemicals, fiberglass tanks, stainless steel tanks, poly tanks, mini bulk equipment, plant design & automation, seed handling equipment, seed treaters, seed conveyors, seed bins, seed tenders, DEF equipment, and petroleum equipment.

Heartland Ag Systems

Booth: 417

Email: kyle.kraska@heartlandag.com

P: 320.587.4030

Web: www.heartlandag.com

Heartland Ag Systems provides application-focused solutions for Ag retailers looking to minimize, downtime, maximize productivity and enhance profitability.

2021 Exhibitors

Heartland Tank Companies

Booth: 610

Email: chall@heartlandtankservices.com

P: 800.303.7201

Web: www.heartlandtankcompanies.com

Heartland Tank Companies are the dependable professionals for all your aboveground liquid storage tank needs, from API 650 field-erected tank construction to internal flexible PVC liners to API 653 inspections.

Helena Agri Enterprise

Booth: 613-615

Email: hartzm@helenagri.com

P: 701.356.0980

Web: www.helenaagri.com

Please stop by our booth to talk about value-added products and service, to add revenue to your bottom line.

Intelligent Ag

Booth: 116

Email: tmoszer@intelligentag.com

P: 701.356.9222

Web: www.intelligentag.com

Intelligent Ag develops state of the art flow monitoring control solutions for seeding, fertilizer, and sprayer machinery.

J&D Construction, Inc.

Booth: 208

Email: glen@jdconstinc.com

P: 320.368.0960

Web: www.jdconstinc.com

J&D Constructions Inc. will design and construct a fertilizer, AG-Chemical and seed warehouse to your needs for the future. We provide a turn-key service from design, engineered services and construction of the facility with on-site management.

J.C. Ramsdell Enviro Services, Inc.

Booth: 318

Email: kelley.ramsdell@jcramsdell.net

P: 605.997.3706

Web: www.jcramsdell.com

Design and installation of secondary containment. Assistance with Department of Ag permitting.

John Deere

Booth: 403

Email: wilcekpaulm@johndeere.com

P: 507.451.4054

Web: www.kibbleeeg.com

John Deere sprayers, spreaders and commercial application equipment.

Kahler Automation

Booth: 611

Email: aphilipp@kahlerautomation.com

P: 507.235.6648

Web: www.kahlerautomation.com

Kahler Automation designs control systems for dry material handling, bulk liquid handling, grain handling equipment, and industrial innovations.

Kibble Equipment

Booth: 616-618

Email: mike.stori@kibbleeeg.com

P: 507.451.4054

Web: www.kibbleeeg.com

Your Farm Business. Your Future. Our Focus - That's Kibble Equipment.

Koch Agronomic Services

Booth: 714

Email: christopher.buckentin@kochind.com

P: 316.828.8063

Web: www.kochagronomicservices.com

At KAS we continuously examine plant nutrient science and work directly with researchers, agronomists, and growers to develop innovative solutions. Our fertilizers and high-efficiency plant nutrient technologies are grounded in science to consistently produce tangible results.

Marcus Construction

Booth: 710

Email: s.goebel@marcusconstruction.com

P: 800.367.3424

Web: www.marcusconstruction.com

Marcus Construction is a complete general contractor that design-builds dry fertilizer storage, warehouses (chemical, seed, bulk and packaged products), office and training centers, and complex renovation projects. Marcus is focused on designing the ideal building for the products you store, the equipment you require and maximizing efficiencies for your process flow.

MicroSource

Booth: 510

Email: larry.grote@microsourcellc.com

P: 308.325.2442

Web: www.microsourcellc.com

Manufacturer and seller of nitrogen stabilizers, low salt starters, liquid and dry micronutrients.

Midwest Laboratories, Inc.

Booth: 415

Email: ktrimble@midwestlabs.com

P: 402.334.7770

Web: www.midwestlabs.com

Delivering high-quality, analytical laboratory services since 1975 so our clients can make smart decisions. Our analytical testing services include agriculture, animal feed and pet food, environmental, and more.

Minnesota Department of Agriculture

Booth: 111

Email: jen.schaust@state.mn.us

P: 651.201.6322

Web: <https://www.mda.state.mn.us/>

The Minnesota Department of Agriculture (MDA) oversees the licensure and certification programs for agricultural chemical use, and performs inspections to ensure public safety, the integrity of our food supply, and the health of our environment.

MN State Centers of Agricultural Excellence

Booth: 115

The Minnesota State Centers of Agriculture Excellence drive workforce innovation through education and industry collaboration - and provide thought leadership on workforce development in the agricultural industry.

Mosaic Company

Booth: 506-508

Email: kevin.bachmeier@mosaicco.com

P: 612.965.1252

Web: www.mosaicco.com

Manufacturers of phosphate and potash fertilizers including the microEssentials, Aspire and K-Mag product lines.

Murray Equipment, Inc.

Booth: 406

Email: sales@murrayequipment.com

P: 260.484.0382

Web: www.murrayequipment.com

Murray Equipment is a supplier and manufacture of liquid handling equipment. Specializing in fertilizer and chemical system design.

MVTL Laboratories

Booth: 409

Email: bwilliams@mvtl.com

P: 800.782.3557

Web: www.mvtl.com

MVTL Laboratories provides full-service agricultural testing. Our agricultural services use approved methods for testing soils, plant, manure, compost, SCN, lime, fertilizer grade, and pesticide screen. MVTL is dedicated to our customer's analytical testing needs providing quality results while maintaining fast turn-around for sample results.

NACHURS

Booth: 314

Email: trice@nachurs-alpine.com

P: 320.522.0230

Web: www.nachurs.com

NACHURS, proudly celebrating 75 years in the industry, is the nation's leading manufacturer/marketer of high quality, true solution liquid fertilizer serving the needs of North American farmers since 1946. Contact Kevin Crandall at (320) 424-1358 or kcrandall@nachurs.com.

Novid Inc.

Booth: 413

Email: shawn@novid.ca

P: 204.746.6843

Web: www.novid.ca

Stainless steel liquid and dry fertilizer tanks and hoppers. Safe, economical long term investment.

Novozymes BioAg

Booth: 712

Email: scds@novozymes.com

P: 507.382.0414

Web: www.novozymes.com/bioag

Novozymes portfolio of biological solutions is derived from naturally occurring microbes & enzymes. We maximize crop fertility return on investment, maximize soil & fertilizer phosphorus efficiency and meet crop nutrition requirement through a natural process.

Nutrien

Booth: 607-609

Email: kyle.ortegren@nutrien.com

P: 712.947.4155

Web: www.nutrien.com

At Nutrien, our purpose is to grow our world from the ground up. As the worlds largest provider of crop inputs, we play a critical role in feeding the future.

2021 Exhibitors

Oxbo International

Booth: 517

Email: tfrish@oxbocorp.com

P: 920.838.5158

Web: www.oxbo.com

Oxbo International develops, manufactures, distributes and supports innovative mechanized solutions for a variety of specific agricultural markets worldwide, specializing in harvest and application equipment including self-propelled sprayers and high flotation liquid and dry applicators.

Precision Tank

Booth: 505

Email: RStratton@precisiontank.com

P: 217.452.7228

Web: www.precisiontank.com

Precision Tank has been a leader in ag tanks since 1965. PT Purchased A&B Welding in 2015. Precision Liquid Construction (PLC) designs, builds liquid fertilizer terminals, offering turnkey solutions to include API 650 tanks.

Ranco Fertiliservice Inc.

Booth: 515

Email: sales@ranco.org

P: 712.283.2525

Web: www.ranco.org

Ranco Fertiliservice manufactures dry fertilizer blending and handling equipment. High quality and time-proven construction sets us apart from our competitors. Contact Bruce Groen in sales.

Raven Industries

Booth: 307-309

Email: Meagan.Huisman@ravenind.com

P: 305.336.2750

Web: www.ravenprecision.com

Raven provides autonomous solutions, cutting-edge application and machine controls, and logistics technology to producers worldwide. We help farmers maximize time, safety, and efficiency as the equipment does more of the heavy lifting.

Razor Tracking

Booth: 705

Email: jason.meixner@razortracking.com

P: 833.467.2967

Web: www.razortracking.com

Razor Tracking offers a real-time operations management platform with a JDLink integration, dash cameras, tank monitoring, safety scorecards, inspections, and a growing marketplace. Razor Tracking has set a new standard in fleet and operations management.

RBR Enterprise, LLC

Booth: 103

Email: jeaton@rbrenterprise.com

P: 662.851.4200

Web: www.rbrenterprise.com

RBR Enterprise, manufacturer of self-propelled fertilizer spreaders and sprayers.

Ridgewater College

Booth: 113

Email: curt.yoose@ridgewater.edu

P: 320.222.5274

Web: www.ridgewater.edu

Agricultural excellence begins at Ridgewater College for students who want a strong, educational foundation. Ridgewater's highly experienced faculty help explore the possibilities through our cutting-edge facilities, connected industry supporters, and solid educational partners.

Rosen's, Inc.

Booth: 412-414

Email: ksundblad@riw2000.com

P: 507.238.4201

Web: www.aginfotoday.com

Rosens Inc. markets, sells and distributes basic agricultural chemicals and the Medallion quality adjuvants. Warehouses are staffed with knowledgeable sales people and strategically located throughout the Midwest.

Sackett Waconia

Booth: 206

Email: troyw@sackettwaconia.com

P: 952.442.4450

Web: www.sackettwaconia.com

Manufacturers of high quality dry fertilizer blending and material handling systems.

Sharda Crop Chem

Booth: 316

Email: a.quitian@shardaintl.com

P: 573.881.3053

Web: www.shardausa.com

Sharda offers a broad portfolio of products. No rebates to keep track of or wait for. No programs to qualify for. Quality crop protection products. No frills. Low net pricing. All products formulated in U.S.A.

Skinner Tank Company

Booth: 210

Email: kent@skinnertank.com

P: 918.387.2481

Web: www.skinnertank.com

Skinner Tank Company has been building large API STD 650 welded steel storage tanks for the fertilizer and agricultural industries for 50 years. STC also provides API STD 653 tank inspections and repairs.

Software Solutions Integrated, LLC

Booth: 315

Email: sales@agvance.net

P: 217.774.2105

Web: www.agvance.net

SSI provides integrated software solutions for ag retailers. Agvance is a windows-based system used throughout the U.S. and Canada. Applications for mapping, field planning, blending, invoicing, inventory, regulatory compliance, propane, motor fuel, grain, patronage and full accounting are included within the Agvance suite of products.

Squibb Taylor Inc.

Booth: 511

Email: treys@squibbtaylor.com

P: 214.357.4591

Web: www.squibbtaylor.com

NH3 valves, NH3 hoses, and NH3 safety equipment.

StoneX Financial Inc. - FCM Division

Booth: 407

Email: Bryan.Bednarek@StoneX.com

P: 800.422.3087

Web: www.stonex.com

StoneX Financial Inc. & FCM Division (a subsidiary of StoneX Group Inc.) helps clients protect their margins against commodity price volatility through a unique blend of global market access, digital platforms and high-touch expertise.

Stueve Construction

Booth: 509

Email: rhedner@stueve.com

P: 515.295.3110

Web: www.stueve.com

The largest and most experienced construction services provider of fertilizer bulk storage, warehousing, and office solutions in the agricultural industry.

Syngenta Crop Protection

Booth: 612-614

Email: misty.luecke@syngenta.com

P: 515.222.4833

Web: www.syngenta.com

Syngenta is a world leading agriculture company with more than 25,000 employees in 90 countries. Through worldwide class science, global research and commitment to our customers, our goal is to increase crop productivity, protect the environment and improve health and quality of life.

University of Minnesota Extension

Booth: 107-109

Email: trothman@umn.edu

P: 800.232.9077

Web: www.extension.umn.edu

Take control of crop success with unbiased crop research, publications and news from UMN Extension.

UPL

Booth: 205-207

Email: peter.white@upl-ltd.com

P: 320.221.9916

Web: www.upl-ltd.com

UPL is a leader in global food systems and one of the top 5 agricultural solutions companies worldwide. The company offers an integrated portfolio of agricultural solutions, including biological, crop protection, seed treatment and post-harvest solutions.

Valent USA LLC

Booth: 104

Email: trevor.dale@valent.com

P: 763.205.6895

Web: www.valent.com

Valent USA Corp. develops and markets products that protect crops, enhance yields, improve food quality, beautify the environment and safeguard public health. Our products contribute greatly to the quality of life Americans enjoy.

2021 Exhibitors

Van Diest Supply Company

Booth: 209

Email: joel.abbott@vdsc.com

P: 515.832.2366

Web: www.vdsc.com

Distributor and Manufacturer of Agricultural Chemicals. Cornbelt Product Line.

Vive Crop Protection

Booth: 410

Email: contactus@vivecrop.com

P: 416.260.8889

Web: www.vivecrop.com

Every Vive Crop Protection product contains the Allosperse Delivery System, allowing our products to be mixed and applied with other chemicals, liquid fertilizers, micronutrients and hard water.

Willmar Fabrication, LLC

Booth: 212-214

Email: denise.bakken@willmarfab.com

P: 320.843.1700

Web: www.willmarfab.com

Willmar Fabrication, LLC manufactures Redball sprayhoods to help control spray drift and resistant weeds. We also offer Redball Spray Monitors and the Reservoir Tillage 850 to help farmers optimize use of water in their fields.

Winfield United

Booth: 303

Email: malm@landolakes.com

P: 651.375.6687

Web: www.winfieldunited.com

Winfield United is a member owned distribution company offering crop protection products, seed (including the Croplan brand), and ag technology tools and other services.

Ziegler Cat

Booth: 217-219

Email: susan.hansen@zieglercat.com

P: 952.885.8266

Web: www.zieglerag.com

Ziegler is a family-owned company making traditions for more than 100+ years. You can count on Ziegler Ag Equipment to provide you with the best new and used agriculture equipment and back it up with the best-in class product support. We carry a full line of innovative farm technology and machinery.

2021 Agronomy Challenge

WIN \$1000 first place / \$500 second place in the Agronomy Challenge at the Short Course **Wednesday, December 8, 2021.**

The 2021 Agronomy Challenge will be held on Wednesday, December 8th from 9:00 AM to 4:00 PM. Participating teams of two will visit exhibitors to find answers to agronomic questions in hopes of earning the title: "Minnesota's Best Agronomy Team for 2021" and a chance to earn the first prize of \$1000 for the most correct answers or \$500 for the second place team. See the registration staff on the 3rd floor for a test!



2020 Minnesota CCA Recognition

25 Years

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Allen Paul Van Grouw
Michael J. Hommez
Kent M. Fabel
Edward C. Lehman
Glenn T. Hjelle
Clyde W. Tiffany
Lisa M. Behnken
Alan Mark Goldenstein
Dave R. Schwartz
Lee A. Williams
Terry L. Dybdahl
Roy W. Minion
Bruce J. Drager
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Dean Allen Larsen
Joseph J. Kuznia
Tom A. Munk
Wesley D. Roll
Alain B. Bellicot
Randal J. Baune
Brian G. James
Mark D. Fillbrandt
Ronald D. Paulson
Ricky Lee Netterlund
Dan D. Schley
Bryan Smith

20 Years

Clayton Petersen
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Richard W. Janssen
Shawn Lyberg
Brian L. Nelson
Paul R. Bruns
Adam J. Heimer
Dan Q. Johnson
Keith Paul Loe
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Aaron J. McCornack
John Mahoney
David E. Bell
Troy Dean Lupke
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Ryan B. Ridl
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Eric G. Tufton
Loren G. Pearson
Glen A. Borgerding

15 Years

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Scott McKay
Kyle Robert Schmit
Troy Ahrenholz
James R. Christenson
Ryan David Moeller
Matthew J. Weller
Mark J. Glady
Jon Vesledahl
Chad Steinkamp
Mark Suska
Mark David Honsey

10 Years

Mark Geislinger
Mark Van Dyke
Daniel J. Haubrich
Reid J. Olson
Richard Rohrer

5 Years

Thomas Peter Wilczek
Eric E. Von Muenster
Dean M. Simonsen
Mishawn F. Homme
John A. Panka
Luverne M. Sanders
Jennifer A. Gallus
Charles F. Tank
Karl Nesse
Lauren M. Proulx
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Scott Barnes
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Luke Daninger
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Daniel M. Miller
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Amy A. Amberg
Jeremy R. Drewitz
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William J. Werk



2021 Minnesota CCA Recognition

25 Years

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James M. Johnson
Randy A. Altmann
Thomas R. Kellen
Jonathan J. Schmitz
Rodney H. Hart
Michael J. Blaine
Chad E. Buysse
Marilyn A. Backman
Grant D. Pearson
Mark Bloomquist
Pete W. Caspers
Steven R. Roehl
Thomas Arthur Fry
Peter Harold Kramer
Joseph B. Winkels
Martin L. Schott
Dan Walters
James B. Nesseth
Christopher Thomas Soltau
Rick T. Gilsdorf
Eric A. Hartman
Gerald D. Langmade
Brian Noah Weller
Dale Robert Scheffler
Ken Thomas
Brad Spinler

20 Years

David R. Voller
Beau D. Matson
Gerald L. Kucera
Ryan D. Rettke
Timothy L. Beeck
Jon Bork
David D. Axelsen
Michael R. Flint
Aaron Leigh Ladlie
Aaron Erickson
Paul E. Krueger
James M. Whaley
Joanne Prom
Charles Bolte
Van S. Cunningham
Mark Lefebvre
Kenneth J. Franzky
Jeremiah Otto Johnson
Ed Gruenes
Kurt Bast

15 Years

Duane A. Grensteiner
Joshua B. Baker
Donald E. Gibson

10 Years

Jeffrey Sorenson
Amy Lynn Heintz
Nick Einck
Kaelin H. Kylo
Adam F. Kayser
Logan Grant Vaughn
Michael Kragenbring
Matt Wiebers
Matthew V. Bezdicek
Timothy Michael Gehling
Jason Stafslie
Shannon E. Cohrs
David A. Smith
Craig R. LaVoi
Guy Bray

10 Years (continued)

Margaret A. Johnson
Allen W. Schmidt
Rick Schwachtgen
Tony Sommer
Adam Isaacs
Lance Garrett Gerber
Nicholas J. Smeby
Mark Scott

5 Years

Aicam Laacouri
Amy Robak-Bruce
Joshua B. Edmondson
Kyle J. Lilly, MS
Joseph Dee
Alex G. Block
Haily S. Sand
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Melissa Miller
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Jordan D. Wiersma
Thomas Boutain





Minnesota
Crop Production Retailers

2021 MCPR Short Course

December 7-9, 2021

Minneapolis Hilton

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Bar & Food

Bar & Food

Entrance