

MINNESOTA OFFICE FOR SOIL HEALTH EXTENSION

SOIL MANAGEMENT SUMMIT

January 29-30, 2025MANKATO, MN

JAN 29TH

9:00 AM | Registration

9:30 AM | Welcome

9:45 AM | Concurrent session 1

10:45 AM | Break/Exhibitor visit

11:00 AM | Concurrent session 2

12:00 PM | Lunch

1:00 PM | Concurrent session 3

2:00 PM | Break/Exhibitor visit

2:15 PM | Table talks

4:30 PM | Farmer panel

5:30 PM | Beer and Bull

JAN 30TH

7:15 AM | Breakfast

8:00 AM | Concurrent session 4

9:00 AM | Industry table talks

9:40 AM | Break/Exhibitor visit

10:00 AM | Concurrent session 5

11:00 AM | Break/Exhibitor visit

11:15 AM | Lunch and panel



20th Annual Soil Management Summit Agenda

Mayo Event Center (1 Civic Center Plaza Mankato, MN 56001)

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Wednesd	lay, Janua	ary 29, 2025 – C	Day 1		
9:00–9:30 9:30–9:45	Registration Grand Han 2000y				
	Room	241	243	Banquet Hall East	Banquet Hall West
9:45–10:45	Concurrent sessions #1	Herbicide and cover crop interactions Dan Smith, UW and Liz Stahl, UMN (CM)	Tillage- when, where, and how to add tillage in low-till system Marla Riekman, Manitoba Agriculture (SW)	Nitrogen management after cover crops Peter Tomlinson, KSU (SW)	Farmer economics panel Andy Linder, Martin Larsen, Vance Johnson, MN farmers (PD)
10:45-11:00	Break/Exhibitor visit - Grand Hall				
11:00–12:00	Concurrent sessions #2	Cover crops 101 Amy Robak, Centra Sota and TJ Kartes, Saddle Butte Ag. (CM)	How drainage and soil health work together Eileen Kladivko, Purdue University (SW)	Beneath the surface: Navigating soil/planter dynamics in high-residue situations Brian Luck, UW (CM)	Farmer economics panel Andy Linder, Martin Larsen, Vance Johnson, MN farmers (PD)
12:00-1:00	Lunch - Gran	d Hall			
1:00-2:00	Concurrent sessions #3	Optimizing cereal rye cover crop management ahead of corn to reduce seedling disease and mitigate yield loss Alison Robertson, ISU (IPM)	Tillage- when, where, and how to add tillage in low-till system Marla Riekman, Manitoba Agriculture (SW)	Beneath the surface: Navigating soil/planter dynamics in high-residue situations Brian Luck, UW (CM)	Manure management in soil health systems Melissa Wilson, UMN (NM)
2:00-2:15	Break/Exhibi	tor visit - <i>Grand Hall</i>			
2:15-3:50	Table Talks (See Page 10 for list of talks; three rotations at 2:15, 2:50, and 3:25 p.m.)				
3:50-4:30	Break/Exhibitor visit – beer opens - Grand Hall				
4:30-5:30	Panel: How farmers can work with policymakers to make policy work for them (PD)				

Beer and Bull - Join us for free beer, hors d'oeuvres, and networking! - Grand Hall

BEER AND BULL – *Sponsored by Agassiz Seed* Enjoy free beer, dinner appetizers, and prizes*! Network with speakers, exhibitors, and fellow farmers to share insights on improving soil health.

*Must be present to win.

5:30-8:00

CEU abbreviations:

- Nutrient Management (NM)
- Soil & Water Management (SW)
- Integrated Pest Management (IPM)
- Crop Management (CM)
- Professional Development (PD)

Concurrent session #1 descriptions | Wednesday 9:45 - 10:45 a.m.

Herbicide and cover crop interactions - Dan Smith, UW and Liz Stahl, UMN (CM)

Attendees will learn how to manage troublesome weeds and establish cover crops to avoid herbicide carryover injury. Considerations when planning to use a cover crop for forage will also be explored.

Tillage- when, where, and how to add tillage in low-till system - Marla Riekman, *Manitoba Agriculture* (**SW**)

Riekman will cover how occasional tillage may help overcome localized compaction or resolve other field-specific issues. She'll discuss how to decide when it's worth tilling, and what implements might be most effective for specific problems you may be facing.

Nitrogen management after cover crops - Peter Tomlinson, KSU (SW)

Nitrogen is the most yield-limiting nutrient in crop production and its efficient management is necessary for improving sustainability and profitability. Growing cover crops in rotation with cash crops can influence nitrogen fertilizer requirement for succeeding crops. This breakout session aims to evaluate the effects of different types of cover crops and nitrogen rate on corn and grain sorghum nitrogen uptake and nitrogen use efficiency.

Farmer economics panel - Andy Linder, Martin Larsen, Vance Johnson, *MN farmers* (**PD**)

Farmers from different regions in Minnesota will share insights on the economics of their farming operations and break down how soil health-promoting practices fit into their farm finances.

Concurrent session #2 descriptions | Wednesday 11:00 a.m. - 12:00 p.m.

Cover crops 101 - Amy Robak, Centra Sota and TJ Kartes, Saddle Butte Ag. (CM)

In this session, Amy and TJ will share their experiences working with farmers who have implemented cover crops across Minnesota. They will discuss the basics of what farmers need to know when beginning to grow cover crops - from species selection, planting, timing, and termination. The goal is to help farmers figure out if and how they can fit cover crops into their cropping operation.

How drainage and soil health work together - Eileen Kladivko, Purdue University (SW)

Drainage is an important water management practice on naturally poorly drained soils. In addition to improving timeliness of field operations and crop growth and yield, drainage is also a necessary first step to improving soil health. Conservation practices such as cover crops and no-till need adequate drainage of the soil in order to provide optimum benefits for soil health. We will discuss the interactions of appropriate drainage and soil health practices.

Beneath the surface: Navigating soil/planter dynamics in high-residue situations - Brian Luck, UW(CM)

This session will discuss best management practices for no-till planting into high-residue systems. Specifically addressing no-till coulters, closing wheels, and row-unit downforce.

Farmer economics panel - Andy Linder, Martin Larsen, Vance Johnson, *MN farmers* (PD) See session description in Concurrent Session #1 descriptions.

Concurrent session #3 descriptions | Wednesday 1:00 - 2:00 p.m.

Optimizing cereal rye cover crop management ahead of corn to reduce seedling disease and mitigate yield loss - Alison Robertson, *ISU* (IPM)

Cover cropping protects soil, arguably our most important agricultural resource. Still, some farmers are hesitant to include cover crops in their production for various reasons including risk of reduced yield in the cash crop. My lab and colleagues collaborate to understand what is causing reduced yields in corn following a cereal rye cover crop to optimize cover crop management. Current research on the effect of precision planting cover crops, nitrogen immobilization, and allelopathy on seedling disease and yield will be shared.

Tillage - when, where, and how to add tillage in low-till system - Marla Riekman, *Manitoba Agriculture* (SW)

See session description in Concurrent Session #1 descriptions.

Beneath the surface: Navigating soil/planter dynamics in high-residue situations - Brian Luck, UW(CM)

See session description in Concurrent Session #2 descriptions.

Manure management in soil health systems - Melissa Wilson, UMN (NM)

Livestock manure is more than just nutrients - it also has a significant amount of carbon in it. It doesn't just feed plants, it feeds the soil, too! This session will discuss how manure contributes to soil health.

Panels

How farmers can work with policymakers to make policy work for them - Brad Carlson (Moderator), Dana Allen-Tully (Panelist), Margaret Wagner (Panelist), Skip Langer (Panelist) and Martin Larsen (Panelist)

Farmers and agency personnel will discuss how farmers have helped shape policy, including strategies for engaging successfully on sensitive issues like nitrates in SE MN groundwater. The panelists will share their different takes on how stakeholders can engage on shaping regulation in the agricultural sphere, and take questions from the audience.

Farmers sharing their soil health journeys - Anna Cates (Moderator), Matt Tiffany (Panelist), Harmon Wilts (Panelist) and Mike Young (Panelist)

Farmers from different regions in Minnesota will share their soil health journeys, talk about what soil health practices work on their farming operations, and provide insight about how they troubleshoot challenges using the principles of soil health.

Speakers' Biographies

Visit z.umn.edu/SMS2025SpeakerBios or scan the QR code to view a presentation featuring each speaker's biography and photo.



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Thursday	, January	30, 2025 – Day	2		
7:15	Breakfast - Grand Hall				
	Room	241	243	Banquet Hall East	Banquet Hall West
8:00–9:00	Concurrent sessions #4	Soil function: Plants and animals have a shared responsibility with soil organisms Lealand Schoon, USDA-NRCS (SW)	4R nutrient management in soil health systems Jeff Vetsch, UMN and Phil Smith, MN farmer (NM)	Occasional tillage: What does research really say? Humberto Blanco, UNL (SW)	Soybean cyst nematode in soil health systems Greg Tylka, ISU and Dorian Gatchell, MN Ag Services (IPM)
9:00-9:40	Industry Table Talks (See Page 10 for list of talks; two rotations at 9:00 and 9:20 a.m.)				
9:40-10:00	Break/Exhibitor visit - <i>Grand Hall</i>				
10:00–11:00	Concurrent sessions #5	Practical farm transfer techniques Harmon Wilts, MN farmer and Rob Holcomb, UMN (PD)	4R nutrient management in soil health systems Jeff Vetsch, UMN and Phil Smith, MN farmer (NM)	Strip-till 101 Jodi DeJong Hughes, UMN and Mike Young, MN farmer (SW)	Biologicals in agriculture - are they worth it? Paulo Pagliari, UMN (CM)
11:00–11:15	Break/Exhibitor visit - Grand Hall				
11:15–12:15	Lunch and Panel: Farmers sharing their soil health journeys (SW) - Grand Hall				
12:15	Wrap up				

Concurrent session #4 descriptions | Thursday 8:00 - 9:00 a.m.

Soil function: Plants and animals have a shared responsibility with soil organisms- Lealand Schoon, *USDA-NRCS* (**SW**)

This session takes the participant through paradigms which may exist because of what we have been told, not necessarily experienced. Once soil function is appreciated, we learn that the land management on the surface (plants or animals) is a shared responsibility with soil organisms. The talk shares actual ranch experiences and photographs demonstrating what positive things happen when a grazing strategy is applied that repopulates soil organism habitat.

4R nutrient management in soil health systems - Jeff Vetsch, *UMN* and Phil Smith, *MN farmer* (NM)

Soil health systems often include cover crops, reduced tillage and manure application. Nutrient management of manure and commercial fertilizer can be improved using 4R techniques specific to soil health systems. Jeff will share research information on how best to customize 4R nutrient management of N, P, K and S in cropping systems with soil health practices. Phil will talk about his experiences and what has been working for his farming operation. With five years of real data and soil tests results in hand, Phil will share his soil health journey and explain how he's been able to reduce applications of synthetic nutrients and increase profit potential on his farm.

Occasional tillage: What does research really say? - Humberto Blanco, UNL (SW)

No-till farming provides many benefits, but it may come with challenges (i.e., herbicide-resistant weeds, compaction, nutrient stratification) in some fields despite the use of cover crops and other biological practices. This leads to questions including: would occasional tillage ameliorate such challenges? Does tillage reverse all the benefits gained after many years of no-till? This presentation will discuss, based on field research, the implications of occasional tillage in long-term no-till systems.

Soybean cyst nematode in soil health systems - Greg Tylka, *ISU* and Dorian Gatchell, *MN Ag Services* (IPM)

In this discussion we will talk about how soybean cyst nematode (SCN) and soil health systems interact with each other through identification, scouting and transport. We will also look at the ramifications of cover crop use and how a healthy soil can influence SCN numbers: positively or negatively.

Concurrent session #5 descriptions | Thursday 10:00 - 11:00 a.m.

Practical farm transfer techniques - Harmon Wilts, MN farmer and Rob Holcomb, UMN (PD)

This breakout session will discuss practical techniques for transitioning your farming operation to the next generation. The presenters will share their experience with the farm transfer process. Additionally, the session will address the importance of goal setting, financial statements, income tax consequences, and the use of business entities in the process.

4R nutrient management in soil health systems - Jeff Vetsch, *UMN* and Phil Smith, *MN farmer* (NM)

See session description in Concurrent Session #4 descriptions.

Strip-till 101 - Jodi DeJong Hughes, *UMN* and Mike Young, *MN farmer* (SW)

Jodi will talk about the soil impacts of various types of tillage, highlighting how strip-till compares to other forms of tillage. Mike will share how strip-tilling has been working on his operation, and what he's learned along the way.

Biologicals in agriculture - are they worth it? - Paulo Pagliari, *UMN* (CM)

In his presentation, Pagliari will review biological products used in agriculture, the type available on the market, how they work, and when they work best. He will highlight research data from experiments conducted at research centers at the University of Minnesota using replicated trials.

SMS COMMITTEE MEMBERS:

Marcelle Lewandowski - UMN Water Resources Center, MOSH Anna Cates - UMN Extension, State Soil Health Specialist

Jodi DeJong-Hughes – *UMN* Extension

Claire LaCanne - UMN Extension

Taylor Herbert – *UMN Extension* Bailey Tangen – *UMN Extension*

Gabi Bolwerk - UMN Extension

Liz Stahl - UMN Extension

Melinda Dontje – UMN Extension

Holly Hatlewick - Renville SWCD

Dorain Gatchell - Independent Crop Advisor, MN Farmer

Tanner Schuldt - ETS (Soil

Warrior)

Royalee Rhoads - ETS (Soil

Warrior)

Matt Tiffany - MN Farmer

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TABLE TALKS

Wednesd	lav. Januai	rv 29. 20	25 – Dav 1

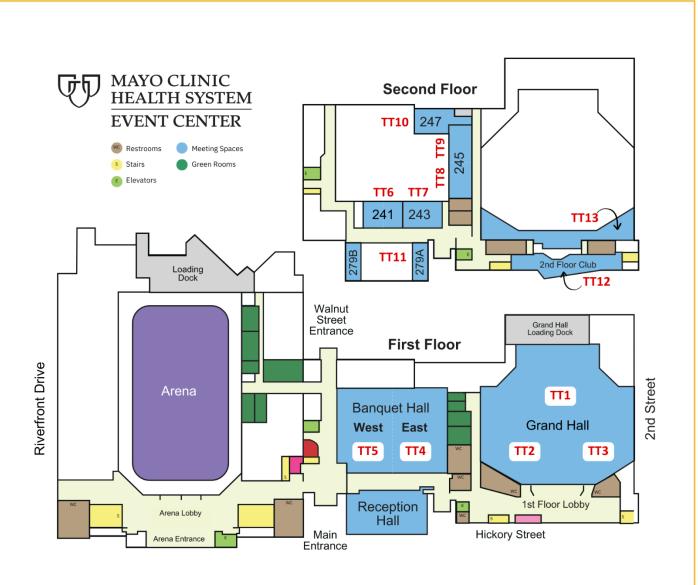
Table Talk topics: Informal c	onversations led by experienced farmers and Extension s	pecialists
Name	Tonic	Table

Name	Topic	Table
Gabi Bolwerk, <i>UMN</i> and Bailey Tangen, <i>UMN</i>	Roots, shoots, and use: What cover crops can do for you	TT 1
Melissa Wilson, <i>UMN</i>	Manure management in soil health systems	TT 2
Dan Smith, UW	Interseeding cover crops: The good, bad, and ugly	TT 3
Brian Luck, <i>UW</i>	Seed depth and how it affects row crop emergence	TT 4
Grant and Dawn Breitkreutz, MN farmers	Building a soil health speakeasy: Farmer to farmer networking	TT 5
Lealand Schoon, <i>USDA - NRCS</i> and Jonathan Kilpatrick, <i>SFA</i>	Grazing for soil health: The one thing all grasslands have in common	TT 6
Greg Tylka, <i>ISU</i> and Dorian Gatchell, <i>MN Ag Services</i>	Using biocontrol methods for SCN management: A philosophical look	TT 7
Phil Smith, MN farmer	Soil health CAN reduce synthetic nutrient needs	TT 8
Holly Hattlewick, SWCD	Taking a look at what your soil can do: Infiltration rate	TT 9
Liz Stahl, <i>UMN</i> and Alison Robertson, <i>ISU</i>	Pests to look out for when using cover crops and reduced tillage	TT 10
Vance Johnson and Harmon Wilts, MN farmers	Climate smart practices for your sugar beet soil health	TT 11
Seth Naeve, UMN Extension	Planting soybeans in high-residue systems	TT 12
Anna Cates, UMN Extension	CI score scenarios to make carbon farming pay off	TT 13

Thursday, January 30, 2025 – Day 2

Industry Table Talk topics: Informal conversations led by industry specialists

Name	Topic	Table
Saddle Butte Ag	Cover crops 101: How to start in any system	TT 1
ETS	Achieving seedbed success with strip till	TT 2
Agassiz Seed & Supply	How to select a cover crop mix for your operation	TT 3
MN Corn Growers	Your corn check-off at work in sustainable research	TT 6
MN Ag Water Quality Certification	MDA Soil Health Equipment Grants	TT 7
Blue Earth County SWCD	Soil health programs and funding: What is available	TT 8
USDA NRCS	Building Context - Using the Web Soil Survey to better understand inherent soil properties.	TT 9
Cargill	Winter Camelina: Fueling the Future?	TT 10



EXHIBITORS

Albert Lea Seeds Centra-Sota Conservation Technology Information Center

Dawn Equipment Company

Dean's Ag

Kuhn Krause, Inc.

Martin Till

McPherson Crop Management

MN Soil Health Coalition

Mosaic Fertilizer

Natural North LLC

Practical Farmers of Iowa (PFI)

Precision Planting

Rodale Institute

Strip Till For You

Sustainable Farming

Association (SFA)

Tenacity Ag

Yetter Farm Equipment

Zimmerman Manufacturing

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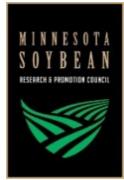
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Association

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