2023

Thirty-first Annual

# CONSERVATION TILLAGE & TECHNOLOGY CONFERENCE





# **McIntosh Center**

Ohio Northern University Ada, Ohio March 14-15, 2023

# CTTC is supported by:

Ohio State University Extension and OARDC
Northwest Ohio Soil & Water Conservation Districts
The Ohio No-till Council
USDA Farm Service Agency
USDA Natural Resource Conservation Service
Ohio Department of Agriculture





### March 14, 2023 Tuesday

**Room A - GENERAL SESSION** 

Sponsored by: Calmer Corn Seeds, Pioneer, Meristem & Brandt Products

Moderator: Stephanie Karhoff, Lee Beers, Amber Emmons & Grant Davis

8:30 Welcome and Awards

Master Farmer Awards: Editor of American Agriculturist, Jennifer Kiel Outstanding Certified Crop Adviser: Vice-Chairman, Ohio CCA Board, Jason Hartschuh

- Randall Reeder, OSU Extension Ag Engineer (retired)

9:15 Six Profit-Boosting Tips for High-Yielding Corn

(CM=0.5)

- David Hula, Corn Yield Champion, Charles City, VA

9:45 BREAK IS SPONSORED BY Ohio Agriculture Conservation Initiative



### March 14, 2023 Tuesday

### Room A - AGRONOMIC CROP MANAGAMENT

Sponsored by: Calmer Corn Seeds, Pioneer, Meristem & Brandt Products

Moderator: Stephanie Karhoff, Lee Beers, Amber Emmons & Grant Davis

10:00 Management of frogeye leaf spot of soybean, in light of widespread fungicide resistance

- Carl Bradley, University of Kentucky

(IPM=1.0)

11:00 Soybean Disease Management Update

(CM=1.0)

- Horacio Lopez-Nicora, OSU

11:30 LUNCH IS SPONSORED BY A&L Great Lakes Laboratories

12:45 Q&A with David Hula (Corn Yield Champion, 4 years)

(1st hr., CM=0.5, 2nd hr., CM=0.5)

(co-sponsors: Marion Calmer, Calmer Corn Heads; Kyle Poling, Pioneer;

Brad Bergefurd, Brandt Products and Nathan Louiso, Meristem)

Moderators: Dusty Sonnenberg (Ohio AgNet), with representatives from co-sponsors

3:15 BREAK IS SPONSORED BY Ohio Agriculture Conservation Initiative

3:30 Corn Abiotic Stress Factors

(CM=1.0)

- Tony Vyn, Purdue University

4:30 Severe Storm Damage and Short-Term Weather Stresses on Corn: A Review

(CM=0.5)

- Alex Lindsey, OSU

Corn Response to Long-Term Seasonal Weather Stressors: A Review

(CM=0.5)

- Osler Ortiz, OSU

5:30 **End** 

5:00



### March 14, 2023 Tuesday

### **Room B - Nutrient Management**

Sponsored by:



Moderators: Glen Arnold, Tim Barnes, Clint Schroeder & Paige Garrabrand

		•
10:00	Manure Plot Results and Expectations: Using a Cadman System in 2023	(CLM=0.5;CM=0.5)
	- Glen Arnold, Professor, Field Specialist, Manure Nutrient Management, O	SU Ext.
10:30	Poultry Litter Utilization	(CLM=0.5; NM=0.5)
	- Mike Cook, Innovative Ag	
11:00	Innovations that Improve Nutrient Utilization – Ontario Experience	(CLM=1.0; NM=1.0)
	- Christine Brown, Ontario Ministry of Agriculture Food and Rural Affairs	
12:00	Working with Avian Influenza in a Commercial Flock Situation	(CLM=0.5; PD=0.5)
	- Veterinarian, Ohio Department of Agriculture, Division of Animal Health	
12:30	LUNCH IS SPONSORED BY A&L Great Lakes Laboratories	
1:45	Ohio Department of Agriculture Update on Manure - Sam Mullins, Ohio Department of Agriculture	(CLM=0.5; NM=0.5)
2:15	Variable Rate Manure Application using a Tanker - Duane Stateler & Anthony Stateler, Stateler Family Farms	(CLM=0.5; NM=0.5)
2:45	The Yield Impact of Destratification	(CM=0.5)
	- Marion Calmer, Farmer and Researcher, Alpha, IL (owner of Calmer Corr	n Heads)
3:15	Next Level Nutrient Management Planning - Paige Fitzwater, Precision Services Manager, Legacy Farmers Cooperativ	(CLM=0.5; NM=0.50) e
3:45	BREAK IS SPONSORED BY Ohio Agriculture Conservation Initiative	
4:00	Beaver in a Bag: Temporary Dams for Ditches - Curtis Tobe, District Technician, Putnam SWCD	(CLM=0.5; NM=0.5)
4:30	Finding Black Gold at the Bottom of Manure Lagoons - Eric & Megan Dresbach, W.D. Farms Inc.	(CLM=0.5; NM=0.5)
5:00	Frequency of Germinable Weed Seeds in Poultry Litters of North Carolina	via Zoom
	- Stephanie Kulesza, North Carolina State University	(CLM=0.5; CM=0.5)
5:30	End	



### March 14, 2023 Tuesday

### Room C - Precision Ag & Technology



Modera	tors: John Fulton, Beth Scheckelhoff and Alan Leininger	REVIEW
10:00	Drone Delivery of Crop Inputs in Ohio - Alan Leininger, OSU Extension, Henry County	(IPM=1.0)
11:00	How Precision Ag can help ODA meet the H2Ohio Program nutrient load re- - Kip Studer, Ohio Dept. of Agriculture	eduction goals (CLM=0.5; PA=0.50)
11:30	eFields: Precision Ag and Soil Health - Elizabeth Hawkins, OSU Extension Field Specialist	(CLM=0.5; CM=0.50)
12:00	LUNCH IS SPONSORED BY A&L Great Lakes Laboratories	
1:15	Precision Agriculture Economics and Decision Making - Beyond Profitability - Jordan Shockley, Univ. of Kentucky	(PA=1.0)
2:15	Systems Approach to Farmstead Automation for Grain Crop Production - Scott Shearer, Chair, OSU Dept. of Food, Ag, and Biological Engineering	(PA=1.0)
3:15	BREAK IS SPONSORED BY Ohio Agriculture Conservation Initiative	
3:30	Planter Technology for Optimum Yields - Bill Lehmkuhl, Precision Agri Services Inc.	(CM=0.5)
4:00	Precision Technology and the path to Automation - Chris Wiegman, Research Engineer, CNHi	(PA=0.5)
4:30	Panel: Ag Tech to Improve Farm Conservation, Moderator: John Fulton - Bill Lehmkuhl, Scott Shearer, and Chris Wiegman	(CM=1.0)
5:30	Adjourn	

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### 2023

- ♦ Apr. 5, 2023, Ohio Soil Health field day, David Brandt Farm, Fairfield Co.
- ♦ Aug. 17, Ohio No-Till (Summer) Field Day, Jeff Duling Farm, Putnam Co.
- Aug. 22, Ohio No-Till (Afternoon) Field Day, VanTilburg Farm, Mercer Co.
- ♦ Aug. 31, Ohio No-Till (Morning) Field Day, Seneca Co.
- ♦ Aug. 31, Ohio No-Till Evening Special, OSU South Centers, Piketon
- ♦ Sept. 19-21, Farm Science Review
- Dec. 6, Ohio No-Till Conference, Plain City

### 2024

- ♦ Jan. 9-12, 2024, National No-till Conference, Indianapolis
- ♦ March 12-13, 2024, Conservation Tillage & Technology Conference

### March 14, 2023 Tuesday

## Room Chapel - No-till, Cover Crops and Soil Health

Sponsored by:



erators: Sarah Noggle, Jim Hoorman, Nic Baumer, Courtney Krieger,
Bro. Nick Renner & Rachel Conhran

10:15	Using Micronutrients to Increase Crop Yields - Jim Hoorman, Hoorman Soil Health Services	(CLM=1.0; SW=1.0)	
11:15	Wattercutter Farm Soil Health Journey – Cover Crop Research	(CLM=0.5; SW=0.5)	
	- Michael Wattercutter, Agronomist, American Farmland Trust/Mercer Landmark		

11:45	LUNCH IS SPONSORED BY A&L Great Lakes Laboratories	
1:00	The Effects of Soil Health on Soil Health Structure - Jason Sneed, District Program Administrator, Clinton County SWCD	(CLM=0.5; SW=0.5)
1:30	The Complicated Nature of Soil Health Practices and Water Quality - Will Osterholz, Research Soil Scientist, USDA-ARS, Soil Drainage Research Uni	(CLM=1.0; SW=0.5) †
2:30	Cover Crop Effects on Nitrogen need in Corn (Cover Crop Research) - Rachel Cochran, Water Quality Extension Associate, OSU Extension - Clint Schroeder, Program Manager, Farm Business Analysis, OSU Extension	(CLM=0.5; NM=0.5)
3:00	BREAK IS SPONSORED BY Ohio Agriculture Conservation Initiative	
3:15	Michigan Weather Stories – Climate Change Adaptations - Sarah Fronczak, Environmental Management Educator, Michigan State U.	(SW=0.5)
3:45	Corn Residue Breakdown - Brad Bergefurd, Brandt Products	(CM=0.5)

4:15 Panel – Climate, Interseeding, Drought Stress in an Ohio Cropping System Moderator: Sarah Noggle

(NM=0.5; SW=0.5)

Panel:

- Ryan Hayden, OSU-ATI, Wooster
- Aaron Wilson, OSU Extension, Ag Weather & Climate Field Specialist
- Cody Beacom, Bird Agronomics

### 5:15 Adjourn

### NOTE:

"The Annual meeting of the Board of Directors of the Conservation Tillage & Technology Conference will be held April 20, 1:00 to 4:00, in Kenton at the OSU Extension office. Everyone is invited. Both in-person and on Zoom."

"Thanks to major contributors, session and event sponsors."



# Conservation Tillage & Technology Conference

Thank you to our sponsors

























Ohio State University Extension Ohio Agricultural Research and Development Center



## "Thanks to exhibitors."

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- ∞ ODA-DSWC
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- ∞ Sustain Seed and Soil
- ∞ TIMAC Agro
- ∞ USDA-NRCS
- ∞ Valent USA
- ∞ Walnut Creek Seeds LLC
- ∞ Wright on the Market



### March 15, 2023 Wednesday

# Room A - Agronomic Crop Management



- Stephanie Karhoff, OSU Extension Field Specialist  9:00 National Screen of Commercially Available Biological Seed Treatments for Soybean (IP - Laura Lindsey, OSU Extension)  9:30 Biological Seed Treatment - Delivering More Viable Microbes to the Field - Jane Fife, 3 Bar Biologics and OSU FABE  10:30 BREAK  10:45 Insight into some Non-conventional Weed Management Tools for use in our Convention Minded Ag Systems (CLM=1.0; IP - Kevin Bradley, Univ. of Missouri and Alyssa Essman, OSU  11:45 OSU Weed Management Update - Alyssa Essman, OSU Extension  12:15 LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strategy Network  1:45 Advancing cover cropping as an Integrated Weed Management (IWM) tool (CLM=1.0; IP - John Wallace, Penn State University)  2:45 BREAK		tors: Stephanie Karhoff, Andy Londo, Amber Emmons & Grant Davis	REVIEW
P:30 Biological Seed Treatment - Delivering More Viable Microbes to the Field - Jane Fife, 3 Bar Biologics and OSU FABE  10:30 BREAK  10:45 Insight into some Non-conventional Weed Management Tools for use in our Conventio Minded Ag Systems - Kevin Bradley, Univ. of Missouri and Alyssa Essman, OSU  11:45 OSU Weed Management Update - Alyssa Essman, OSU Extension  12:15 LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strategy Network  1:45 Advancing cover cropping as an Integrated Weed Management (IWM) tool (CLM=1.0; IP) - John Wallace, Penn State University  2:45 BREAK	8:30	<u> </u>	(IPM=0.5)
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Minded Ag Systems - Kevin Bradley, Univ. of Missouri and Alyssa Essman, OSU  11:45  OSU Weed Management Update - Alyssa Essman, OSU Extension  12:15  LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strategy Network  1:45  Advancing cover cropping as an Integrated Weed Management (IWM) tool (CLM=1.0; IP) - John Wallace, Penn State University  2:45  BREAK	10:30	BREAK	
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<ul> <li>- Alyssa Essman, OSU Extension</li> <li>12:15 LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strategy Network</li> <li>1:45 Advancing cover cropping as an Integrated Weed Management (IWM) tool (CLM=1.0; IPL- John Wallace, Penn State University</li> <li>2:45 BREAK</li> </ul>			(CLM=1.0; IPM=1.0)
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- John Wallace, Penn State University  2:45 BREAK	12:15	LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strateg	gy Network
	1:45		(CLM=1.0; IPM=1.0)
3:00 Short- and Long-term Weather Climate Considerations for Planting (CLM=1.0: C	2:45	BREAK	
- Aaron Wilson, OSU Extension, Ag Weather & Climate Field Specialist	3:00	Short- and Long-term Weather Climate Considerations for Planting - Aaron Wilson, OSU Extension, Ag Weather & Climate Field Specialist	(CLM=1.0; CM=0.5)
3:30 When it Rains it Pours, Can Cover Crops Prevent Soil Crusting? (CLM=1.0; Clum=1.0; Clum=1.0	3:30	- Jaime Hampton, OSU Extension - Taylor Dill, OSU Extension	(CLM=1.0; CM=0.5)
	4:00	An Attempt to Plant Ahead of Cold Fronts and What the Data Says - Amanda Douridas, OSU Extension	(CLM=1.0; CM=0.5)
(======================================		Adjourn	

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### March 15, 2023 Wednesday

# Room B - Water Quality and Conservation Practices

Sponsored by:



Moderators: Jocelyn Henderson, Glen Arnold,
Jocelyn Birt and Mark Badertscher

8:30	Regional Conservation Adaptations - Merrin Macrae, University of Waterloo, Ontario, Canada	(CLM=1.0; SW=1.0)
9:30	Using ACPF information in conservation Planning - Matthew Romanko, OSU	(CLM=0.5; SW=0.5)
10:00	BREAK	
10:15	What can we learn from water quality differences across watersheds - Laura Johnson, Heidelberg University	(CLM=0.5; SW=0.5)
10:45	In-stream sources and sinks of P in the Maumee - Nate Manning, Heidelberg University	(CLM=0.5; SW=0.5)
11:15	Two-Stage Ditch water quality impacts - Brittany Hanrahan, USDA-ARS	(CLM=0.5; NM=0.5)
11:45	LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strategy Network	
1:15	Nutrient Loading Impacts and Economics of Drainage Water Management - Mark Williams, USDA-ARS	(NM=0.5)
1:45	Perennial Crop impacts on N and P Losses - Lourdes Arrueta Antequera, OSU Ph.D. student, FABE	(CLM=0.5; NM=0.5)
2:15	OACI Practice Survey - Jordan Hoewischer, Ohio Farm Bureau Federation	(CLM=0.5; NM=0.5)
2:45	BREAK	
3:00	H2Ohio Practice Implementation - Terry Mescher, ODA-DSWC	(CLM=0.5; SW=0.5)
3:30	Implementing TMDLs through Partnerships and Funding Opportunities - Rick Wilson, Ohio EPA	(CLM=0.5;SW=0.5)
4:00	A Regional Approach to Conservation Planning and Implementation	(CLM=0.5; SW=0.5)
	- Greg Nageotte, ODA-DSWC	

### March 15, 2023 Wednesday

### **Room C - Climate and Carbon**

Organized by: Rafiq Islam, OSU Extension and Aaron Wilson, OSU Extension Moderators: Beth Scheckelhoff, Aaron Wilson and Mike Gastier

### 8:30 Overview of climate change effects

(CLM=0.5; CM=0.5)

- Aaron Wilson, OSU Extension, Ag Weather & Climate Field Specialist
- 9:00 Soil Organic Carbon, No-till and Cover Crops for Sustainable Crop Production (CLM=1.5; CM=1.5)
  - Warren Dick, OSU Soil Scientist (retired)
  - Dave Brandt, Fairfield County (40+ year no-tiller)

10:30	BREAK	
10:45	Active C as a measure of SOC sequestration - Shawn Lucas, Kentucky State University	(CM=1.0)
11:45	LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data Strate	gy Network
1:00	Soil carbon marketing opportunities for farmers - Mike Estadt, OSU Extension, Pickaway County	(SS=1.0)
2:00	Legal Developments in the Carbon and Conservation Markets - Peggy Kirk Hall, OSU Agricultural & Resource Law Program	(PD=1.0)
3:00	Legal Issues with Solar and Wind Energy on Farmland - Peggy Kirk Hall, OSU Agricultural & Resource Law Program	(PD=0.5)
3:30	Adjourn	



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March	15, 2023 Wednesday	
Roor	n Chapel - Soil Health, Cover Crops and No-till	Sponsored by:
Modera	tors: Sarah Noggle, Jim Hoorman, Courtney Krieger, Kendall Lovejoy, Bro. Nick Renner and Rachel Cochran	AgCREDIT
8:30	Cover Crop Scrooge: Economical ways to maximize cover crop benefit - Greg McGlinch, Wright State University. Lake Campus	(CLM=0.5; SW=0.5)
9:00	Combine Settings for Better Harvest - Marion Calmer, Calmer Corn Heads	(CLM=0.5; CM=0.5)
9:30	Soil Health and Cover Crops from the Ground Up - Nathan Brown, No-till Farmer, Highland County	(CLM=0.5; SW=0.5)
10:00	BREAK	
10:15	Cover Crop mixtures and Soil Health via Zoom - Dr. Jennifer Blesh, University of Michigan	(CLM=1.0; SW=1.0)
11:15	LUNCH IS SPONSORED BY Amplify - The Professional Data Agronomy Data	a Strategy Network
12:30	Cover Crops and Weed Pressure - Kevin Bradley, University of Missouri	(SW=0.5; CM=0.5)
1:30	Integrating Biologicals for Soil Health Management - Jane Fife, 3 Bar Biologics and OSU FABE	(CLM=1.0; SW=1.0)
2:30	BREAK	
2:45	Producer Panel on Soil Health and Cover Crops  Moderator: Sarah Noggle Panel: - Jeff Duling, Putnam County - Nathan Brown, Highland County - Leslie Seiler, Fulton County - Bill Richards, Pickaway County	(CLM=0.5; NM=0.5; SW=0.5)
3:45	Benefits of Humates: Fulvic and Humic Acid	(SW=0.5)

- Jim Hoorman, Hoorman Soil Health Services

Adjourn

4:15

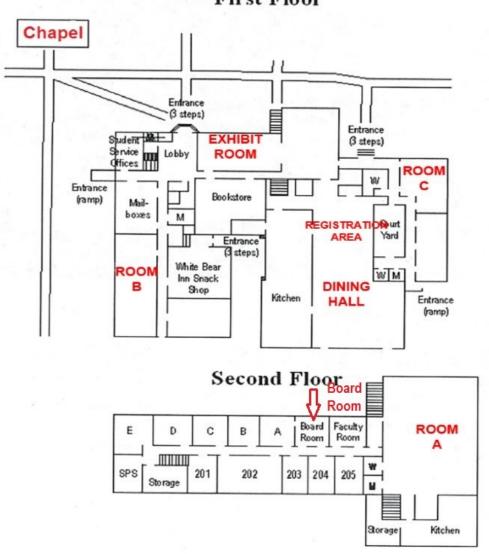
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# McIntosh Center Floor Plan First Floor











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FOR YOUR FAMILY.
FOR YOUR FARM.

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Nathan Eckel Wood County



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