



Advanced Crop Advisers Workshop

Jan. 24-25, 2024

Holiday Inn
I-29 and 13th Avenue South
Fargo

Sponsored by



Audience

This is an advanced workshop for agricultural professionals, including crop consultants, agronomists, Extension agents and agribusiness representatives, who advise farmers with recommendations on crop production.

Agenda

Wednesday, Jan. 24

- 10:15 a.m. Registration (Atrium) and refreshments (Royale)
- 11 a.m. General Session: Introduction (Royale)
- 11:15 a.m. General Session: How world affairs and weather affect grain prices in the Northern Plains (Royale)
Frayne Olson
International trade disputes, wars and weather influence grain prices half a world away. Learn how current affairs, supply, demand and what is projected for 2024 can swell or squeeze average farm profitability. (1 CEU - CM)
- 12:15 p.m. Lunch (Royale)

Participants will be able to attend two of four concurrent sessions offered during the day. Bold-print titles indicate sessions that are offered twice during the workshop.

- 1 p.m. Concurrent Sessions:
 1. **Can stress tolerance in corn and soybean keep yields moving up?** (Executive Room)
 2. **The AI crop adviser** (Board Room)
 3. **Making cents of soil health** (Director's Room)
- 2:30 p.m. Break and North Dakota CCA of the Year (Royale)
- 3 p.m. Concurrent Sessions:
 1. **Can stress tolerance in corn and soybean keep yields moving up?** (Executive Room)
 2. **The AI crop adviser** (Board Room)
 3. **Asymbiotic N-fixing organisms – Natural populations and commercial products: What you should know and what questions to ask** (Director's Room)
- 4:30 p.m. Social: 2023 growing season discussions and enjoy refreshments (Royale)

Thursday, Jan. 25

- 7:30 a.m. Breakfast (Royale) and registration (Atrium)
- 8 a.m. General Session: Historical view of corn and soybean production – What about the future? (Royale)
Joe Lauer and Emerson Nafziger
The speakers' vast experiences will be shared as they recap corn and soybean production decades ago, today and where it is likely to go in coming decades. (1 CEU - CM)

Participants will be able to attend two of six concurrent sessions offered during the day. Bold-type titles indicate sessions that are offered twice during the workshop.

- 9:15 a.m. Concurrent Sessions:
 1. **Making cents of soil health** (Executive Room)
 2. Identification and management of new and emerging diseases of corn, soybean and canola (Board Room)
 3. Soybean's pest-a-palooza in 2023: Strategies for managing multiple pests simultaneously (Director's Room)
- 10:45 a.m. Break
- 11:00 a.m. Concurrent Sessions:
 1. **Asymbiotic N-fixing organisms – Natural populations and commercial products: What you should know and what questions to ask** (Director's Room)
 2. Is biology winning the battle against soybean Phytophthora root and stem rot? (Board Room)
 3. Avoiding train wrecks: Monitoring and managing rootworms (Director's Room)
- 12:30 p.m. Lunch (Royale)
- 1 p.m. Workshop ends

Concurrent Sessions

Wednesday, Jan. 24

■ Can stress tolerance in corn and soybean keep yields moving up?

Joe Lauer and Emerson Nafziger

Dry conditions in recent growing seasons have limited yield potential. Have “drought tolerant” hybrids preserved potential? Are soybeans experiencing more production challenges than years ago? Has our honeymoon with soybeans ended?

(1.5 CEUs - CM)

■ The AI crop adviser

Rob Proulx and Rex Sun

You’ve heard the hype — come hear the facts. Learn about the latest NDSU research and see a live demonstration of artificial intelligence (AI) applications to precision agriculture. Then learn about the opportunities, shortcomings and operational principles behind several AI-powered crop management and advising tools.

(1.5 CEUs - CM)

■ Making cents of soil health

Marshall McDaniel

The concept of soil health can be nebulous even to soil scientists. Marshall will define soil health, present highlights of Iowa soil health studies and emphasize the value of soil health.

(1.5 CEUs - SW)

■ Asymbiotic N-fixing Organisms — Natural populations and commercial products: What you should know and what questions to ask

Dave Franzen

Summaries will be provided on natural population dynamics of asymbiotic organism N-fixing activity and regional studies on the corn yield response from commercial products.

Farmers and their consultants will be urged to perform on-farm replicated strip trials to test products of interest in the future. Points will be presented for potential users to ask providers of biological products to determine whether companies have “done their homework” before bringing those products to the marketplace.

(1 CEU - NM and 0.5 CEU - CM)

Thursday, Jan. 25

■ Making cents of soil health

Marshall McDaniel

The concept of soil health can be nebulous even to soil scientists. Marshall will define soil health, present highlights of Iowa soil health studies and emphasize the value of soil health.

(1.5 CEUs - SW)

■ Identification and management of new and emerging diseases of corn, soybean and canola

Dean Malvick and Wade Webster

Frogeye leaf spot and Cercospora leaf blight on soybean, tar spot of corn, charcoal rot on both corn and soybean, and Verticillium stripe on canola have recently found their way to Minnesota and North Dakota. Learn the latest tips on disease identification and management.

(1.5 CEUs - PM)

■ Soybean’s pest-a-palooza in 2023: Strategies for managing multiple pests simultaneously

Jan Knodel, Patrick Beauzay and Bruce Potter

In 2023, we saw soybeans infested with soybean aphid and spider mites or green cloverworm and soybean aphid. Learn strategies for managing multiple pests simultaneously given pest biology, insecticide resistance, and treatment thresholds.

(1.5 CEUs - PM)

■ Asymbiotic N-fixing Organisms — Natural populations and commercial products: What you should know and what questions to ask

Dave Franzen

Summaries will be provided on natural population dynamics of asymbiotic organism N-fixing activity and regional studies on the corn yield response from commercial products. Farmers and their consultants will be urged to perform on-farm replicated strip trials to test products of interest in the future. Points will be presented for potential users to ask providers of biological products to determine whether companies have “done their homework” before bringing those products to the marketplace.

(1 CEU – NM and 0.5 CEU – CM)

■ Is biology winning the battle against soybean Phytophthora root and stem rot?

Bruce Potter, Jan Knodel and Patrick Beauzay

Phytophthora root and stem rot (PRSR) is re-emerging as a significant disease of soybean. Learn whether *P. sojae* population shifts to overcome seed treatment active ingredients or varietal resistance genes, more compacted soils or inopportune rains may be to blame.

(1.5 CEUs - PM)

■ Avoiding train wrecks: Monitoring and managing rootworms

Bruce Potter, Jan Knodel and Patrick Beauzay

Western and northern corn rootworm populations have shifted to resist many management techniques. Learn the latest about rootworms, and how best to monitor and manage them.

(1.5 CEUs - PM)

Preregistration

Preregistration (including fee payment) is required by Jan. 19. The workshop fee is \$200 per person (\$150 for one-day attendance). The workshop is limited to 150 people. Preregistrations will be accepted on a first-come, first-served basis.

Walk-in registrations will be accepted with a fee of \$250.

CEUs

Certified crop advisers will have the opportunity to receive nine continuing education units (CEUs) by attending both days of the workshop.

CCA CEUs are available in the following categories:

CM = Crop Management

NM = Nutrient Management

PM = Pest Management

SW = Soil and Water Management

Hotel

The Holiday Inn is offering discounted room rates (until Jan. 2) for workshop participants. If making a room reservation, identify yourself as an Advanced Crop Adviser Workshop participant.

Holiday Inn: 701-282-2700 www.fargohi.com

Workshop Instructors

Patrick Beauzay	NDSU, Fargo, ND
Dave Franzen	NDSU, Fargo, ND
Janet Knodel	NDSU, Fargo, ND
Joe Lauer	Univ. of Wisconsin, Madison
Dean Malvick	Univ. of Minnesota, St. Paul
Marshall McDaniel	Iowa State Univ., Ames
Emerson Nafziger	Univ. of Illinois, Urbana-Champaign
Frayne Olson	NDSU, Fargo, ND
Bruce Potter	Univ. of Minnesota, Lamberton
Rob Proulx	NDSU, Fargo, ND
Rex Sun	NDSU, Fargo, ND
Wade Webster	NDSU, Fargo, ND

Workshop Planning Committee

Greg Endres	701-652-2951
co-chair	NDSU Extension, Carrington, ND
Angie Peltier	218-281-8692
co-chair	Univ. of Minnesota Extension, Crookston, MN
Jerry Arneson	Bell Bank, Moorhead, MN
Jodi Boe	AGVISE, Northwood, ND
Darren Dunham	Centrol Crop Consulting, Maxbass, ND
Dave Franzen	NDSU, Fargo, ND
Chris Johnson	Centrol Crop Consulting, Horace, ND
Tom Jones	Wyndmere, ND
Lindsey Lysne	Liberty Ag, Minnewauken, ND
Linda Schuster	NDSU, Carrington, ND

Preregistration Form

Advanced Crop Advisers Workshop

Electronic registration and credit card payment can be submitted at

<https://www.ndsu.edu/agriculture/ag-hub/events/advanced-crop-advisers-workshop>

(Please print or type)

Name(s) _____

Organization _____

Address _____

City _____

State _____ ZIP _____

Phone (_____) _____

Email _____

Fee: \$200 per person required by Jan. 19.

Fee for one-day attendance is \$150.

If one day, indicate day of attendance:

Jan. 24 or Jan. 25

Please make check payable to:

Advanced Crop Advisers Workshop

Return form and fee to:

Advanced Crop Advisers Workshop

c/o Linda Schuster

Carrington Research Extension Center

P.O. Box 219

Carrington, ND 58421-0219

Requests for accommodations related to disability should be made to Linda Schuster at 701-652-2951 by Jan. 2, 2024.

For more information, contact Linda Schuster: Phone: 701-652-2951 • Email: linda.schuster@ndsu.edu