



**MICHIGAN WHEAT PROGRAM**

P.O. Box 25065  
Lansing, MI 48909

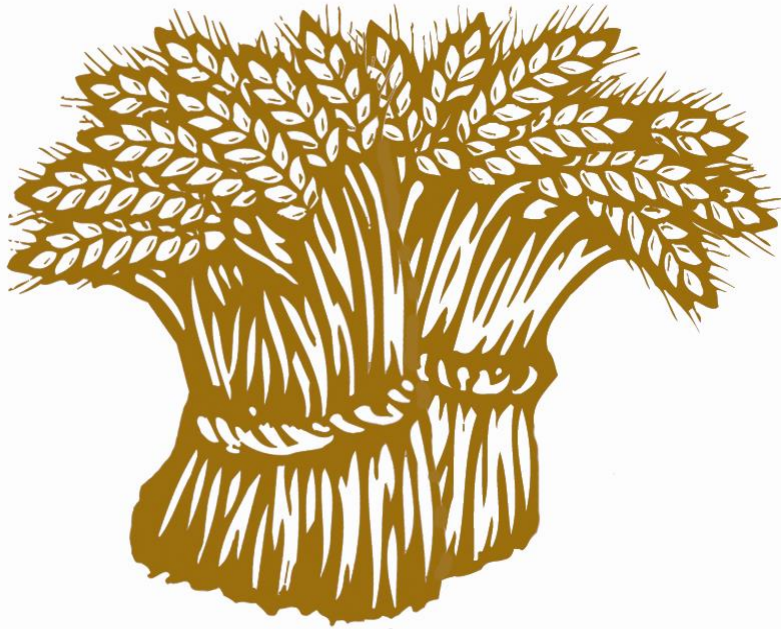
1-888-WHEAT01 (943-2801)  
[www.miwheat.org](http://www.miwheat.org)

***A Decade of Dedication  
Research, Education, Promotion & Market  
Development Activities***

---

***Jody Pollok-Newsom, Executive Director  
Michigan Wheat Program***

# Michigan Wheat Program: The Mission



To promote a **viable, thriving and growing** Michigan wheat industry that includes...

- input suppliers,
- **seed producers,**
- growers,
- **millers,**
- end users and consumers.

# MI Wheat Program: History of the Referendum

- 2011: Start Up vote passes!
  - By **54% popular** vote.
  - By **54% of production**.
  - Approved through Aug. 31, 2016.
- 2016: Continuation vote passes!
  - By **80% popular** vote.
  - By **81% of production**.
  - Approved through Aug. 31, 2021.
- 2021: Continuation vote passes!
  - By **85% popular** vote.
  - By **91% of production**.
  - Approved through Aug. 31, 2026.



# MI Wheat Program: Our Future is Today's Research

**Strategic Goal:** Build wheat research infrastructure today to ensure grower profitability tomorrow.

- Nearly **200** research projects funded.
- Over **\$6 million\*** in grower-funded projects.

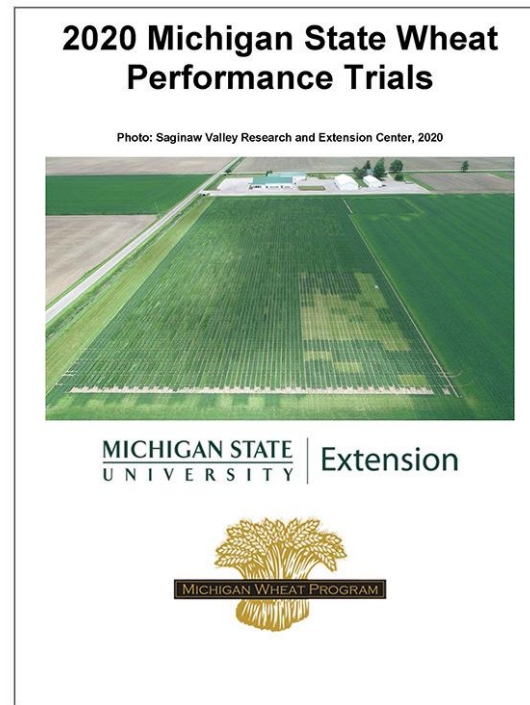
*\* 60% of check-off dollars go to research.*



# MI Wheat: Research Topics

**200** projects funded totaling **>\$6 million since 2012!**

- Breeding/genetics
- Cover crops
- Diagnostics
- Disease
- Double crop soybeans
- Marketing
- Nutrient management
- Precision planting
- Quality
- Rotation
- Variety trials
- Weeds



# MI Wheat: Newest Research

## Explore the potential of wheat as a trap crop for SCN!

Wheat roots survey conducted in June 2022

Cyst (*Heterodera*) juveniles found in 30%  
of root samples.

Initial suspicion of cereal cyst nematode infection

No additional developmental stages observed in  
the samples.

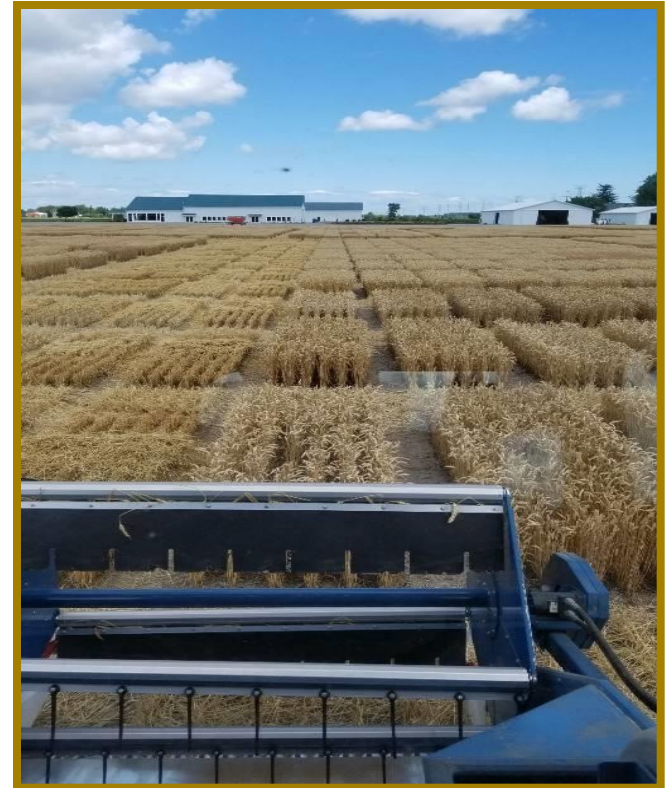
Collected five cyst juveniles (J2 stages) from root  
tissue in two wheat fields

Species identification

Raw data reads indicated 100% match to SCN.

Hypothesis proposed:

Winter wheat acts as a trap crop for SCN



# MI Wheat Program: Informing Growers through Events

## Winter Annual Grower Meetings

**9 in-person**

**1 virtual year with 6 webinars in one year**

**February 25, 2025**

## Summer Field Days

**9 in-person**

**2 virtual years**

**June 25, 2025**



# MI Wheat Program: Support Team

Behind-the-scenes funding.

Research positions for  
more “boots on the ground:”

– **Martin Nagelkirk**  
MSU Extension (*emeritus*)



– **Dr. Eric Olson**  
MSU Wheat Breeder



– **Dennis Pennington**  
MSU Wheat Specialist





# MI Wheat Program: Infrastructure For Future Research

**Strategic Goal:** Build wheat research infrastructure today to ensure grower's profitability tomorrow.

- Wheat check-off invested **\$700,000** for MSU to add land for long-term wheat research.
- Newest investment is **\$400,000** for the new building at the Mason Wheat Farm



# MI Wheat Program: Supporting Equipment

Behind-the-scenes funding of nearly **\$300,000** was needed for equipment as we were limited and needed more to grow program.

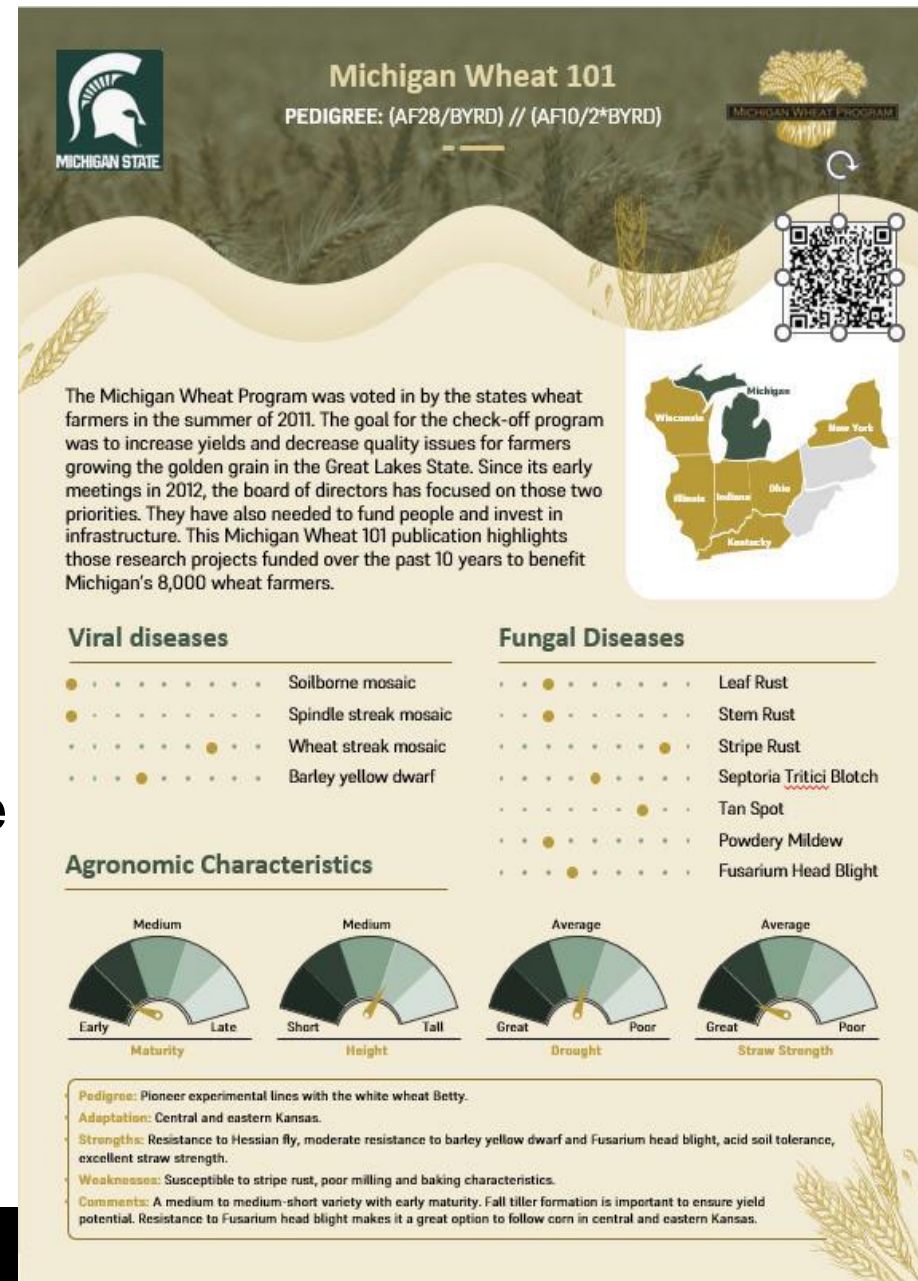
- Harvest Master Grain Gauge Systems (weigh, mois, TW)
- Wintersteiger Quantum Plot combine (Wheat/Drybeans/MSU)
- Precision planter
- Research plot planter
- Tractor



# Partnering Industry and Growers through Variety Releases

## Variety Releases to Build the Pipeline

- Premiere wheat breeder
- Wheat breeding infrastructure
- Handouts
- Videos
- Licensee visits
- Strong partnership



**Michigan Wheat 101**  
PEDIGREE: (AF28/BYRD) // (AF10/2\*BYRD)

**MICHIGAN STATE**

**MICHIGAN WHEAT PROGRAM**

The Michigan Wheat Program was voted in by the states wheat farmers in the summer of 2011. The goal for the check-off program was to increase yields and decrease quality issues for farmers growing the golden grain in the Great Lakes State. Since its early meetings in 2012, the board of directors has focused on those two priorities. They have also needed to fund people and invest in infrastructure. This Michigan Wheat 101 publication highlights those research projects funded over the past 10 years to benefit Michigan's 8,000 wheat farmers.

**Viral diseases**

- Soilborne mosaic
- Spindle streak mosaic
- Wheat streak mosaic
- Barley yellow dwarf

**Fungal Diseases**

- Leaf Rust
- Stem Rust
- Stripe Rust
- Septoria Tritici Blotch
- Tan Spot
- Powdery Mildew
- Fusarium Head Blight

**Agronomic Characteristics**

- Maturity:** Medium (Early to Late)
- Height:** Medium (Short to Tall)
- Drought:** Average (Great to Poor)
- Straw Strength:** Average (Great to Poor)

**Pedigree:** Pioneer experimental lines with the white wheat Betty.  
**Adaptation:** Central and eastern Kansas.  
**Strengths:** Resistance to Hessian fly, moderate resistance to barley yellow dwarf and Fusarium head blight, acid soil tolerance, excellent straw strength.  
**Weaknesses:** Susceptible to stripe rust, poor milling and baking characteristics.  
**Comments:** A medium to medium-short variety with early maturity. Fall tiller formation is important to ensure yield potential. Resistance to Fusarium head blight makes it a great option to follow corn in central and eastern Kansas.

# MI Wheat Program: Supporting Technology

Behind-the-scenes support

- Intellectual Property Agreement
  - Interested in smaller markets
  - Supporting technology release to growers
- Growing the Pipeline
  - Releases every 4 or 5 years
  - Multiple releases annually
  - Large grower investment
  - Tool box additions



# MI Wheat Program: Our Future is Research

**Strategic Goal:** Build wheat research infrastructure today to ensure grower profitability tomorrow.

- Future will have more seed varieties.
- IP translation to market.
- High-management trials.
- Precision planting.
- Improved nutrient management.
- **Grower profitability =  
Higher productivity, less  
crop loss despite weather.**





# The Great Lakes Yield Enhancement Network

Where farmers learn from farmers to grow better wheat

Great Lakes YEN partners:



MICHIGAN STATE UNIVERSITY | Extension



UNIVERSITY of GUELPH

# Great Lakes Yield Enhancement Network

- ADAS, in UK started the Cereal YEN (Yield Enhancement Network) in 2012
- Over 400 farmers
- Components
  - Yield contest
    - Yield
    - Percentage of Yield
  - Report - considerable data collection
  - Networking event

Yield Potential = (solar energy + water availability) x capture x conversion



**MICHIGAN WHEAT PROGRAM**

P.O. Box 25065  
Lansing, MI 48909

1-888-WHEAT01 (943-2801)  
[www.miwheat.org](http://www.miwheat.org)

**MICHIGAN STATE**  

---

**UNIVERSITY**

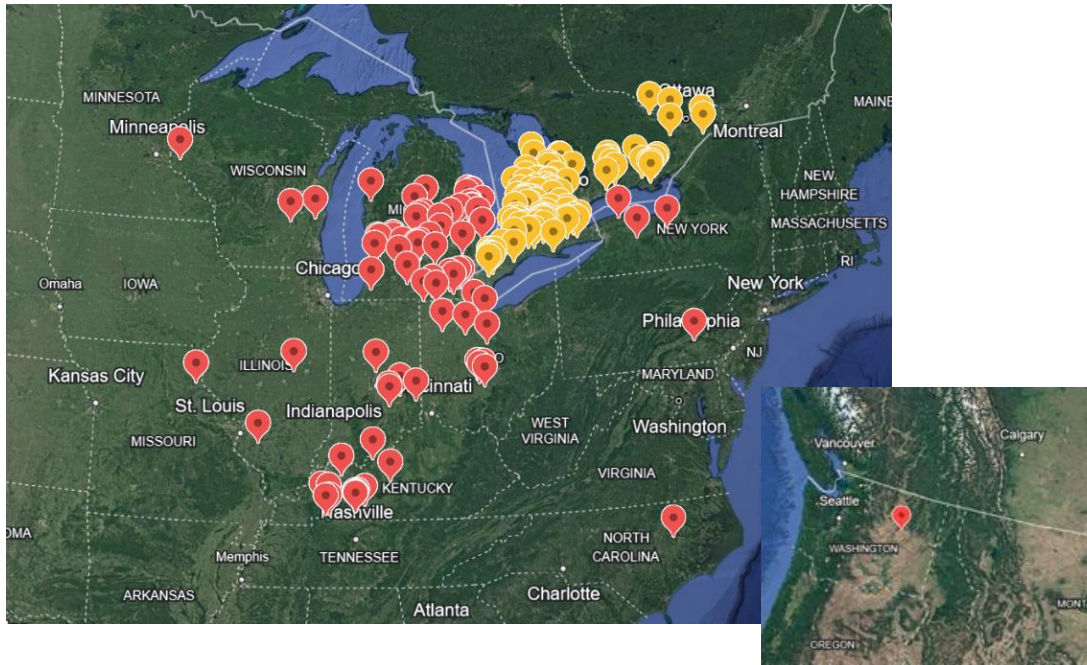
**Ontario**



**UNIVERSITY**  
*of* **GUELPH**



# Our 2024 Locations



43 fields in 2021



98 fields in 2022

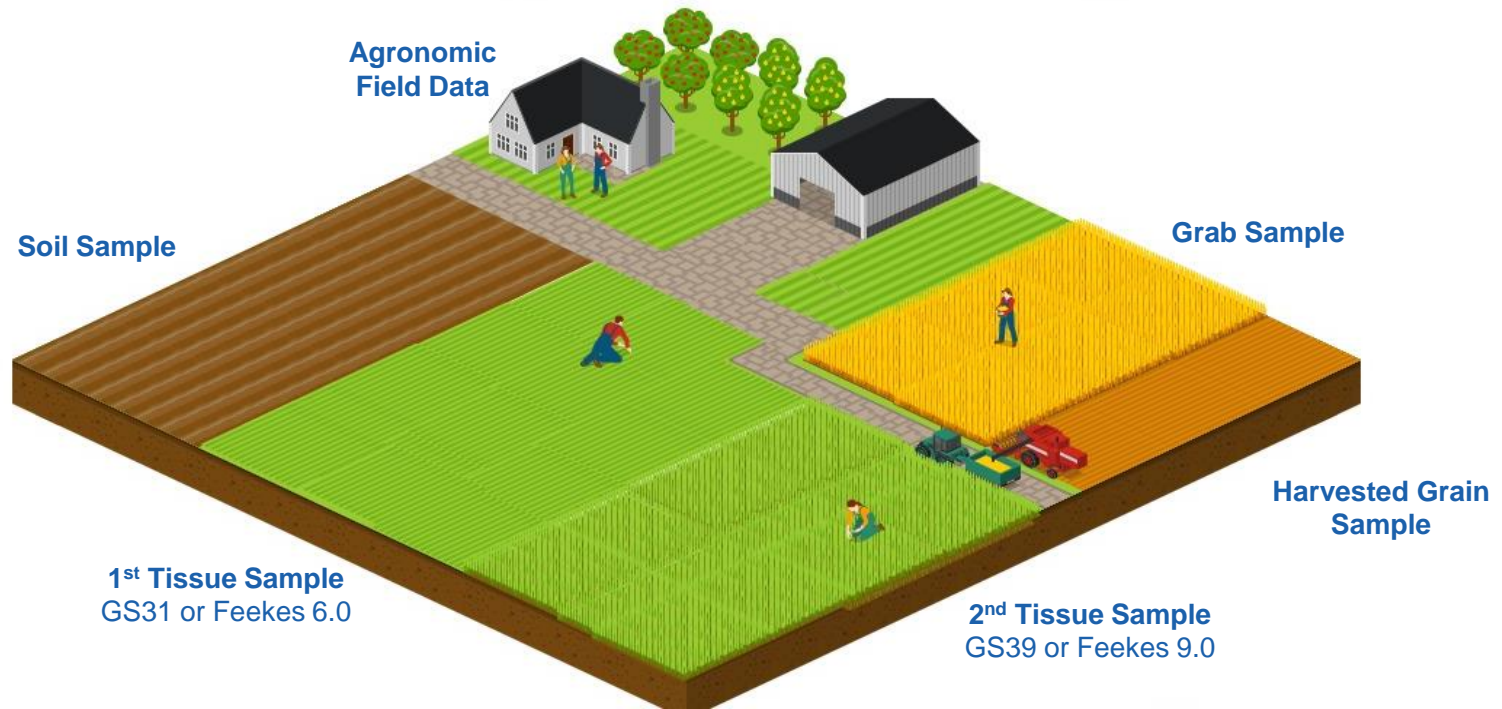


187 fields in 2023



204 fields in 2024!

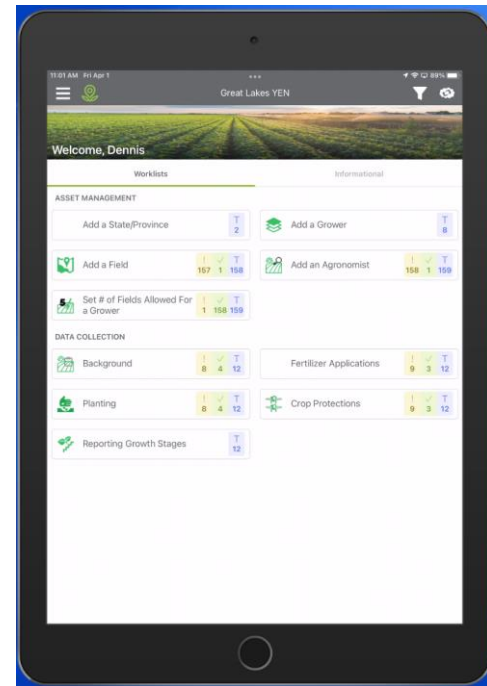
# YEN Critical Samples and Evaluations from the Field



# Enter all data

The logo for CropTrak features a green stylized leaf with a location pin icon in the center, positioned to the left of the text "CropTrak" which has a registered trademark symbol.

- CropTrak
  - IOS, Android, Windows
- Agronomy – farmers
- Soil, tissue, grain, yield component samples – admin
- Yield potential – temp, solar radiation, water, harvest index - admin



# The Report



## Entrant's Report

Harvest 2022

### Your Information

YEN ID: MI005

Province / State: Michigan

Country: United States

Crop: Winter Wheat

Variety: 25W37

### Executive Summary:

- The 2022 Great Lakes YEN involved 98 participants
- The average grain yield for the 2022 Great Lakes YEN was 116.10 bu/ac across all farms including Ontario, Michigan, Ohio, Kentucky, New York, and Wisconsin
- The average yield potential (determined through crop modeling) was 197.28 bu/ac and the average % of potential yield achieved was 59.45% across all farms including Ontario, Michigan, Ohio, Kentucky, New York, and Wisconsin
- Your entry yield of 165.92 bu/ac ranked 1 for absolute field yield within all YEN field entries
- Your entry represents 87.97% of an estimated yield potential of 188.61 bu/ac at your site in 2022, which ranked 1 for achieving the highest percent of potential yield within all YEN field entries

**Table 1.** The top 3 highest grain yields plus your entry.

Rank	Grain Yield (bu/ac)
1	165.92
2	150.19
3	144.13
<b>1</b>	<b>165.92</b>

**Table 2.** The top 3 entries for percent of yield potential achieved plus your entry.

Rank	% Yield Potential
1	87.97
2	79.07
3	79.03
<b>1</b>	<b>87.97</b>

# The Report

## Outcome

- Identify management strategies/conditions that impact yield
- Offer potential routes to further enhance yield

## Contents

Summary .....	3
Growing Conditions.....	3
Weather .....	3
Season Overview.....	5
Potential Grain Yields.....	5
2022 Potential Yields.....	6
YEN Benchmarking Charts – What do they mean?.....	6
Soil and Plant Nutritional Status .....	7
Soil Analysis.....	7
Leaf Tissue Analysis.....	9
Crop Nutrition Postmortem.....	11
Agronomy.....	14
Varieties .....	15
Crop Protection.....	19
Fungicide Application Timing.....	20
Crop Development.....	21
Resources and Their Capture .....	22
Water Capture .....	22
Energy Capture.....	23
Yield Analysis.....	24
Yield Information .....	24
Yield Components.....	25
Questions? .....	27
2022 Great Lakes YEN Sponsors.....	28

# Grower Report (23 pages)

- Planting date, seeding rate, planting depth, variety, previous crops, organic amendments, tillage program, seed treatment, starter fertilizer, herbicide, fungicide, insecticide, plant growth regulator, nitrogen, # of split applications
- Yield, yield potential, yield components, harvest index, total biomass

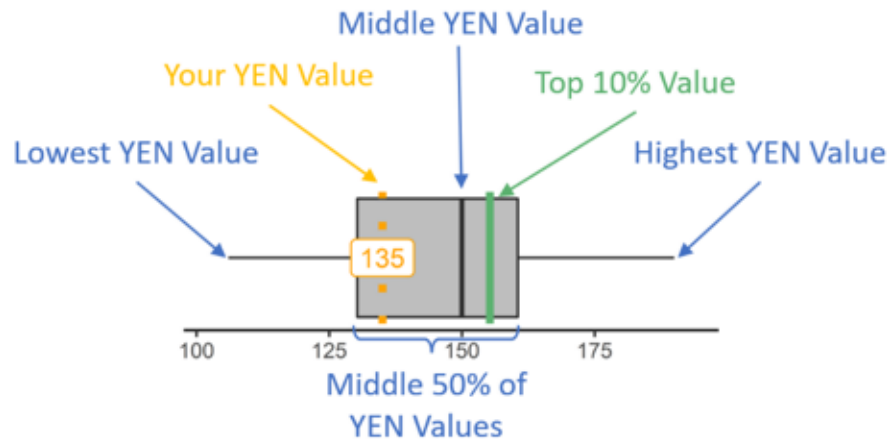
# Grower Report (23 pages)

- Soil, tissue and grain sample analysis
- Test weight, falling number, protein, vomitoxin
- Resource availability: solar radiation, temperature, water

# Navigating the Report – Benchmarking Charts

## YEN Benchmarking Charts – What do they mean?

The YEN is much more than a competition – it provides a full set of metrics that allow you to gauge the performance of your crop against all other YEN entrant's crops. This has proved to be one of the primary values of the YEN. To accomplish this comparison between sites, we visualize collected data using benchmarking charts like the one seen below. These charts compare your value of any given metric to all other entrants in 2022.





# Great Lakes Yield Enhancement Network

- Focus on the Network aspect of the program
- 2023 Summer Tour in the US (Michigan)
- 2024 Summer Tour in Ontario
- 2025 Summer Tour in the UK
- 2026 Summer Tour in the US (Kentucky)

# Great Lakes Yield Enhancement Network

## Looking Regionally

- Reports
- Wrap up meetings
- Small grower meetings
- Specific data
- Different classes

# Sponsors for 2024 Great Lakes YEN



## 2024 Sponsorship Levels

	PREMIER \$15,000+*	DIAMOND \$10,000*	PLATINUM \$7,500*	GOLD \$5,000*	SILVER \$2,500*	SUPPORTER \$750*
Special projects, special data collection, special needs are negotiable	✓					
30 second video (created by Sponsor) posted on Great Lakes YEN social media accounts and sent out to participants by email	✓	✓				
Opportunity to present at the YEN wrap-up meeting to participants (5 minutes)	✓	✓				
Two thank you plugs on social channels (one each at start and end of season), one mid-season plug with product information (sponsor choice on timing), Twitter and Facebook	✓	✓	✓			
Opportunity to present in front of the YEN participants at the kick-off meeting (2 minutes)	✓	✓	✓			
Recognition in grower communications (two times per year)	✓	✓	✓			
Representation on the sponsorship review panel	✓	✓	✓	✓		
Opportunity to include gift items at YEN wrap-up meeting	✓	✓	✓	✓		
Opportunity to set up booth at yearly YEN wrap-up meeting (if in person)	✓	✓	✓	✓		
Attendance to the yearly YEN wrap up meeting (two attendees)	✓	✓	✓	✓	✓	
Inclusion of promotional material to be included in the YEN grower registration package before season begins (Silver may include one swag or document item, Gold, Platinum, and Diamond may include one swag and one document, if appropriate)	✓	✓	✓	✓	✓	
Recognition at yearly YEN wrap up meeting	✓	✓	✓	✓	✓	✓
Logo on sponsor page of website	✓	✓	✓	✓	✓	✓
Logo in the YEN report to growers	✓	✓	✓	✓	✓	✓
Biannual update on how your sponsorship dollars are helping the program.	✓	✓	✓	✓	✓	✓
Copy of the YEN wheat crop summary report for the year	✓	✓	✓	✓	✓	✓

\* plus applicable taxes

# Wheat's Future in The Great Lakes YEN

- Goal: 400-500 participants
- Ways to increase value for participants
  - on farm trials, dashboards in App, etc
- Feeding Ideas for our Research Program
- Partner with Others to include Climate Smart Information
- Register soon: [www.greatlakesyen.com](http://www.greatlakesyen.com)

# MI Wheat Program: The Future

- Continue to **invest in research** for farmer profitability and high-quality wheat.
- Continue to develop **communication links** to share information with farmers.
- Continue to monitor **crop insurance** and other farm programs for adequate coverage.
- Continue to grow partnerships and **leverage dollars**.
- Maintain presence in **consumer information** arena.

# Wheat's Future in The Great Lakes State

## *Michigan Wheat Crop*

- Harvest average 89 bushels per acre
- Acreage was down 170,000 acres, as crops came out late and wheat went in late and in some cases into wet fields
- Our beautiful winter saved us last year
- This year: Beautiful weather
- Hoping to increase acreage again
- Harvest appears to be 2 weeks ahead of normal

# US Wheat's Future

## Coming Changes

More Details to be confirmed

## BioTech Wheat HB4 (drought tolerant)

USDA deregulated HB4 BioCeres

August 27, 2024 announced  
deregulation is the pathway,  
no commercialization yet  
regulatory approval by major  
export markets needed  
grown in Brazil/Argentina  
Australia is testing





# ***For more information...***

Michigan Wheat Program

Executive Director

**Jody E. Pollok-Newsom**

*jody@miwheat.org*



1-888-WHEAT01 (943-2801)

517-490-0280 *cell*

517-625-6061 *fax*

[www.miwheat.org](http://www.miwheat.org)

Michigan Wheat



Mich  YouTube