



MICHIGAN
CROP IMPROVEMENT
ASSOCIATION™

2024/2025 MCI A Annual Report



Cover photo “Seed Corn Sunrise” — Detasseled seed corn field in St. Joseph Co. by MCIA field inspector Tanja Jones.

**ANNUAL REPORT OF THE
MICHIGAN CROP IMPROVEMENT ASSOCIATION**
ON BEHALF OF THE MICHIGAN CROP IMPROVEMENT
STAFF AND BOARD OF DIRECTORS, WE ARE PLEASED
TO SHARE THE 2024/2025 ANNUAL REPORT WITH YOU.
JANUARY 1, 2024 – DECEMBER 31, 2024 | C. JAMES PALMER, MANAGER

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Manager's Address

As we reflect on the past year, I want to extend my sincere appreciation to our board members, membership, and industry partners. Your unwavering commitment to MCIA has been instrumental in our continued success. I would also like to take this opportunity to thank our team, each possessing a unique skill set which allows MCIA to readily fulfill the expectations of our members and customers.

Included in this report, you will find an enormous amount of information about the Association. I hope you will find the report both informative and interesting. I won't be able to address it all here, but I would like to focus on some key achievements and results delivered by the team at MCIA and provide commentary on some of the key projects our team has been focused on in 2024.

This year has been marked by several significant achievements by our team. One particular notable achievement is the success of Lauren Mezo, who, after two years of rigorous training and study, has earned her Registered Seed Technologist (RST) designation. This is an exceptional milestone, as only a few hundred people across the United States hold this prestigious credential. I am incredibly proud of Lauren's dedication and perseverance in reaching this goal and look forward to her continued contributions to MCIA. I also want to recognize the outstanding efforts of our lab team who stepped up to ensure seamless operations while Lauren prepared for her exams. Their teamwork and commitment exemplify the collaborative spirit that defines MCIA.

Another noteworthy achievement this year was a major advancement in our field inspection department. Under the leadership of Tom Siler, our team successfully transitioned from the traditional paper-based field applications and reporting to a fully digital, streamlined system. This transformation significantly improved efficiency, allowing our team to process applications, assign inspectors, and deliver results to customers more effectively than ever before. This example of Tom's innovation and problem-solving has had a tremendous impact in enhancing the overall inspection experience for both our team and our customers.

Finally, I want to highlight the tremendous work taking place in our processing department. A standout example from 2024 was the results of our random food safety audit conducted by our third-party certifier, BRC. This unannounced two-day audit was rigorous, requiring verification that proper training was completed, safety protocols were maintained, and the facility was organized and sanitary, and all records were cataloged and signed. Under the supervision of Lee Siler, we not only passed the audit, but also achieved the highest possible rating, an AA+. This remarkable accomplishment reflects the pride, dedication and attention to detail by our team every day as they handle both seed and food products.

Looking ahead, our focus will be on enhancing efficiencies in the seed lab, expanding services through our field inspection team and strengthening partnerships with our seed providers and the customers of our seed plant. These efforts will ensure that MCIA continues to deliver top-notch services while meeting the evolving needs of our industry. Once again, I would like to express my sincere appreciation to everyone who played a role in our success in 2024. I look forward to another year of growth and achievement together.

Best Regards,

C. JAMES PALMER
MANAGER, MCIA

Field Inspectors

Corn inspectors are not included on this list

LENAWEE, MONROE, WASHTENAW

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EATON, IONIA

TOM SILER
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CLINTON, GRATIOT

MIKAELA TEETER
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SHIAWASEE, INGHAM

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LAPEER, ST. CLAIR, SANILAC

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Board of Directors

CHRIS SCHMIDT

PRESIDENT
Northern Region
Auburn, MI

JEFF DREHER

VICE PRESIDENT
Upper Thumb Region
Palms, MI

TOBY BROWN

SECRETARY/TREASURER
Southwestern Region
Three Rivers, MI

DR. DOUG BUHLER

MSU REPRESENTATIVE
MSU, East Lansing, MI

JEFF MARTUS

INDUSTRY REPRESENTATIVE
Star of the West
Richville, MI

MICHAEL PHILIP

MDARD REPRESENTATIVE
Michigan Department of
Agriculture and Rural Development
Lansing, MI

ALAN MOORE

Central Region
Elsie, MI

CARL WAGNER III

South East Region
Niles, MI

MATT LUTZ

Thumb Region
Sebewaing, MI

Our Team

MCIA employees are an experienced and well-trained team focused on accomplishing the goals of the Association. Currently, our team consists of 7 full-time employees and numerous part-time staff. Our full-time staff members are listed below in the order of date of hire:



CHRIS TIEDJE, RST
FIELD AND LAB SUPERVISOR (1988)

Chris is responsible for hiring and training the MCIA inspection staff of over 50 employees. He also holds a supervisory role in the seed lab where he guides the team and lab operations. Chris holds a Registered Seed Technologist (RST) designation which demonstrates his outstanding proficiency in seed evaluation and testing.



C. JAMES PALMER
MANAGER (1995)

Jim became the Manager of MCIA in 2020. Under the direction of the Michigan Crop Improvement Association Board of Directors, Jim is responsible for the day-to-day decisions for the Association. He keeps the Board informed of pertinent information as necessary. Jim also develops budgets, identifies and reviews purchases, looks for new business opportunities, identifies promising seed varieties and manages seed multiplications.



JOYCE HIEBERT
LAB TECHNICIAN (2011)

Joyce's responsibilities include coordinating and performing all seed laboratory tests including sample log in, planting, reading out, TZ tests, purity tests and tag printing. Joyce prints tags and keeps the lab work procedures up to date. Joyce is also responsible for lab and tag billings.



JANET POLICELLA
OFFICE MANAGER (2013)

Janet is responsible for accounts payable, accounts receivable, cash receipts, invoicing, statements, financial records, and processing certification applications. She has other office duties including answering phones and handling customer inquiries. Janet is also responsible for royalty collection and royalty payment to our genetics suppliers.



LEE SILER

SEED PLANT COORDINATOR/QUALITY MANAGER (2018)

Lee is responsible for directing and managing all quality aspects in the seed and organic food processing plant while maintaining compliance with all regulations for USDA, FDA and BRC. He oversees scheduling incoming and outgoing shipments of seed and food products. Lee also manages our warehouse staff.



LAUREN MEZO, RST

SEED INSPECTION AND SEED TESTING TECHNOLOGIST (2020)

Lauren recently earned her Registered Seed Technologist Certification. This signifies her expertise in seed testing, analysis and quality control. Lauren performs planting and purity duties in the seed lab when needed. She is also responsible for the various field inspections including seed corn inspections as needed. Lauren also manages our website, keeping interactive documents and appropriate links current as well as posting relevant information and content for our members' benefit.



THOMAS SILER

SEED PRODUCTION QUALITY MANAGER (2022)

Thomas is responsible for inspections of all seed crops, but especially focusing on seed corn. He has a background in agriculture and holds a master's degree from MSU in Crop and Soil Science. Thomas is also very proficient with data management and is responsible for field applications, data collection and results reporting. Thomas is also responsible for the Non-Gmo testing in the lab.

Financial Results

MCIA finished 2024 with a positive net income of about \$185,000. Our expenses were slightly above and revenues slightly below those in 2023. Decrease in seed corn acres were the main driver in the differences between the last two years. The Association also had a strong year in the custom processing category. Overall, our team executed our goals for 2024 which helped keep the Association financially strong. Please find a summary of the MCIA finances printed below:

SCHEDULES OF REVENUES AND EXPENSES BY BUDGET CLASSIFICATION FOUNDATION SEED DIVISION | YEARS ENDED DECEMBER 31, 2024 AND 2023

	2024		2023	
	Actual	Budget	Actual	Budget
REVENUES				
Gross profit				
Barley	\$ 3,568	\$ 6,500	\$ 6,804	\$ 6,200
Kidney beans	261,908	191,000	233,309	185,050
Beans	206,658	132,700	156,688	159,000
Oats	16,364	13,000	15,939	12,000
Soybeans	1,968	1,500	2,000	2,000
Wheat	162,328	170,000	199,856	162,000
Chemical and bag cost of sales	6,088	-	947	-
Freight	(24,251)	(14,000)	(18,389)	(18,000)
Miscellaneous income	-	500	-	-
Sales discounts and inventory adjustments	(3,026)	(2,500)	(2,101)	(1,000)
	<u>631,605</u>	<u>498,700</u>	<u>595,053</u>	<u>507,250</u>
Services				
Custom processing	164,799	107,000	114,676	102,000
Color sorter	35,298	39,000	35,905	41,000
Rogueing	-	-	1,380	-
Organic processing	32,729	20,000	25,262	25,000
Collection fees	3,071	40,000	2,876	50,000
Other	8,678	-	10,604	-
	<u>244,575</u>	<u>206,000</u>	<u>190,703</u>	<u>218,000</u>
Total service revenue				
Other income	9,050	2,000	7,340	1,200
Investment return, net	50,797	4,500	64,907	(450)
	<u>936,027</u>	<u>711,200</u>	<u>858,003</u>	<u>726,000</u>
TOTAL REVENUES				
EXPENSES				
Salaries and benefits	358,720	350,900	323,539	359,500
Payroll taxes	23,800	25,000	23,097	25,000
Training, workshops and meetings	7,059	6,000	3,379	6,000
Travel and vehicle	5,724	7,750	5,838	9,000
Telephone	2,352	2,700	2,406	2,700
Office supplies and postage	3,910	7,300	5,481	7,400
Maintenance and repairs	32,291	42,500	29,185	42,500
Rent	-	5,000	1,341	10,000
Warehouse supplies	11,102	9,000	10,124	9,000
Insurance	16,334	13,500	13,408	10,500
Utilities	17,289	23,900	14,243	28,500
Depreciation	115,616	119,200	127,244	111,000
Dues and subscriptions	6,341	4,000	6,140	4,000
Research	54,476	-	93,646	2,250
Professional services	16,787	24,000	17,714	27,200
Promotion and advertising	5,000	6,500	7,146	5,000
Directors' expenses	2,909	3,000	2,389	3,000
Miscellaneous	1,200	5,500	5,992	6,500
	<u>680,910</u>	<u>655,750</u>	<u>692,312</u>	<u>669,050</u>
TOTAL EXPENSES				
CHANGE IN NET ASSETS	<u>\$ 255,117</u>	<u>\$ 55,450</u>	<u>\$ 165,691</u>	<u>\$ 56,950</u>

No assurance is provided on the financial statements.
See independent accountant's compilation report.

Financial Results, continued

SCHEDULES OF REVENUES AND EXPENSES BY BUDGET CLASSIFICATION FIELD AND LAB SERVICES DIVISION | YEARS ENDED DECEMBER 31, 2024 AND 2023

	2024		2023	
	Actual	Budget	Actual	Budget
REVENUES				
Services				
Inspections and tags				
Wheat	\$ 38,637	\$ 40,500	\$ 48,621	\$ 32,000
Rye	4,443	1,600	1,692	1,000
Oats	3,869	3,800	4,007	4,000
Barley	1,136	1,700	1,902	1,600
Soybeans	55,565	68,000	74,271	62,000
Corn	662,742	731,500	745,722	635,500
Beans	12,084	7,200	9,529	10,100
Mulch	636	750	786	500
Other tags	48,193	45,500	55,883	47,850
IRM inspections	5,455	-	6,295	-
Testing	121,076	90,300	116,713	87,000
Total service revenue	953,836	990,850	1,065,421	881,550
Other income	2,080	2,000	(1,544)	1,200
Investment return, net	67,868	10,000	76,686	-
TOTAL REVENUES	1,023,784	1,002,850	1,140,563	882,750
EXPENSES				
Salaries and benefits	803,843	702,300	775,337	617,300
Payroll taxes	52,062	47,000	50,233	38,000
Training, workshops and meetings	17,376	13,500	9,469	13,000
Field inspections	80,921	80,250	85,593	56,000
Telephone	2,652	3,000	2,406	3,000
Office supplies and postage	7,462	13,100	9,479	13,300
Maintenance and repairs	14,867	22,100	14,996	22,300
Lab supplies	13,178	10,000	9,142	10,000
Outside lab testing	2,614	3,000	2,197	3,000
Seed outside labor	188	-	-	-
Tags	-	7,000	-	10,000
Insurance	16,334	13,500	13,410	10,500
Utilities	12,082	15,800	13,108	15,000
Depreciation	19,541	21,000	18,381	24,000
Dues and subscriptions	12,038	8,000	11,502	8,000
Professional services	17,603	28,000	23,082	30,400
Promotion and advertising	9,706	14,000	13,154	12,000
Directors' expenses	2,908	3,000	2,390	3,000
Bad Debt	-	1,000	-	1,000
Miscellaneous	8,266	10,750	11,586	10,500
TOTAL EXPENSES	1,093,641	1,016,300	1,065,465	900,300
CHANGE IN NET ASSETS	\$ (69,857)	\$ (13,450)	\$ 75,098	\$ (17,550)

No assurance is provided on the financial statements.
See independent accountant's compilation report.

Current Services to Assist Our Members

Field

- » Field inspection for Seed Certification Programs.
- » Quality Assurance Inspections for brand marketing of seed.
- » Disease Inspection for dry beans and other crops.
- » Data system direct customized field inspections.
- » Field Assessments used to directly manage pollen control for hybrid seed corn.
- » Perform pre-harvest services for seed corn.
- » In-field seed corn disease sampling and evaluation.

Seed Lab

- » Perform standard warm germination and purity tests.
- » Assess seed vigor with TZ, accelerated aging and cold tests.
- » Provide seed count, seed moisture and testing with seed treatments.
- » Herbicide trait verification and GMO testing.
- » Perform purity and noxious weed exams for international shipping.
- » Official ASL report of analysis for international shipping.
- » Perform varietal purity analysis for certification.
- » Perform extended cold test, saturated cold test and fast green for early plantings.

Seed and Processing

- » Provide quality foundation and parent seed stock for seed growers.
- » Provide custom processing services for seed, grain and feed.
- » Offer field rogueing services.
- » Our Processing Plant is Certified Organic and BRCGS Food Safety Certified.
- » Perform color sorting services to remove unwanted defects or contamination.
- » Repackage, warehouse and ship items for customers.

Facility Upgrades

Notable Improvements in 2024

- » Fully implemented digitization of field inspections for all crops. Including applications, maps, and reporting to customers.
- » Installed enclosed tool cabinet in seed plant for tool security and safety.
- » Replaced air compressor in warehouse #3.
- » Added new “walk in” growth chamber for increased seed testing capabilities.
- » Furthered the use of ACH and credit card payments though the office or website.
- » Transitioned lab records and results from paper to electronic format.
- » Upgraded programming to digital platform for all corn field inspection reports.
- » Acquired floor scrubber for seed warehouse.
- » Installed new concrete pathway between warehouse buildings.
- » Purchased Chevrolet Pickup for use as company vehicle.



New Growth Chamber

2024 Scholarship Recipients

Michigan State University Scholarships

Each year MCIA awards 10-\$2000 scholarships to deserving MSU students who are studying programs with an emphasis in agriculture. The scholarships are intended to encourage a greater number of students to enter the field of agriculture. The 2024 recipients and the leaders of tomorrow are:

GABRIEL ARDIS
LAKE CITY

RYAN HENNE
NORTH BRANCH

JAMES JASPER
SAWYER

EMMA KUHL
HANOVER

SYDNEY MASSERANT
NEWPORT

TORI MAYNARD
ELSIE

ALETHIA PRATAS DA COSTA SANTA RITA
BRAZIL

CADEN WADE
WHEATLAND, WY

JOSIE WAGAR
CLIMAX

LAURYN WISHOWSKI
BRECKENRIDGE

Scott Judd Memorial Scholarships

The Scott Judd Scholarship was established in 2019/2020 to honor the long time MCIA Manager Randel H. Judd who lost his son to cancer at an early age. The applicants must attend Mason High School and be planning to attend MSU in a STEM or Ag related field. There are two recipients per year who receive \$1,000 scholarships. This scholarship continues for ten years.

SOPHIA BARNUM
MASON, MI

KAELYN CRADDOCK
MASON, MI

Research Priorities

The MCIA Board of Directors developed priorities to help guide them when making decisions on funding research proposals. This document was recently reviewed and changed to include more emphasis on small grains such as barley, oats and rye. This document will be continually monitored to reflect the current needs of the Association members. Priorities are below:

Dry Bean Research

A. Development and release of superior dry bean varieties to MCIA members

1. High yield potential
2. Upright plant architecture (direct cut ability)
3. Disease resistance for Bacterial Blights, Anthracnose, Rust, BCM Virus, and Root rots.
4. Industry acceptable color, size, and canning quality.
5. Defect free in the sense of color and appearance that result in excessive dockage/pick.
6. Sustainable varieties that capture grower market share/acceptance for multiple seasons.

B. Important areas

1. Development of varieties resistant to Common Bacterial Blight. Bacterial blight diseases have been the major factor causing the dry bean seed industry to move its seed production to western states. Research into resistance to bacterial blights would greatly enhance the ability of Michigan dry bean seed producers to compete and become successful in this market.
2. There is a need for the re-selection of popular or high use varieties. Dry bean varieties tend to last longer than varieties of other field crops. Re-selection will ensure that clean seed stocks are available through the life of the variety. This practice will normally extend the life of the variety.
3. Development of root rots resistance in dark red kidney beans. Root rots can cause stand reductions and affect the grower's ability to successfully raise kidney beans.
4. Development of a high yielding navy bean. There is a need for a high yielding navy bean variety for MCIA members.

Wheat Research

A. Development and release of superior red and white wheat varieties to MCIA members.

1. High yield potential
2. Excellent lodging resistance, high test weights, sprout resistance, and good winter hardiness.
3. Disease resistance for scab, septoria, powdery mildew, and rust.
4. Industry acceptable milling and baking qualities.
5. The importance of wheat in a cropping system.
6. Threshing ease: Ambassador =10, Jupiter = 1.
7. Bearded varieties, both red and white, are desired in high deer population areas (most of Michigan).
8. Non-Glycosidic Nitrile(Non-GN) varieties for malting/distillation. Non-ethyl carbamate compound producers.
9. Early maturing varieties suitable for double cropping.

B. Disease Resistance

1. Development of scab resistance varieties. Scab resistant varieties would greatly benefit the Michigan wheat industry from producer to processor. Soft white wheat is really a specialty crop used in the Michigan milling industry. It is important to keep competitive varieties available so that we don't lose this industry. In the past 10 years many farmers have switched to corn or soybeans and away from wheat in their cropping systems.

C. Wheat Management

1. Determine the best management practices for newly developed MCIA wheat varieties. As new varieties are released there is a need to determine the best way to manage these new wheat varieties. Research should focus on fertility, disease susceptibility and other factors that affect maximizing wheat profitability.

Oat Research

A. Developing, testing, and evaluating new oat varieties in Michigan climates to help oat producing MCIA members know which varieties will do best in their area.

1. High yield potential.
2. High test weight and milling qualities.
3. Improved disease resistance and good agronomic qualities.

Barley Research

A. Testing and evaluation of malting barley varieties in Michigan climates to fill the need for locally produced malting barley. MCIA members would like to be able to supply this market.

1. High yield potential.
2. Proper malting properties.
3. Improved disease resistance and good agronomic qualities.

B. Testing and evaluation of feed barley varieties in Michigan climates. MCIA members would like to be able to supply this market.

1. High yield potential.
2. Proper malting properties.
3. Improved disease resistance and good agronomic qualities.

Rye Research

A. Developing, testing, and evaluating new rye varieties in Michigan climates to help rye producing MCIA members know which varieties will do best in their area.

1. High yield potential.
2. High test weight and milling qualities.
3. Improved disease resistance and good agronomic qualities

Projects Funded

MCIA project number:

Title: Developing Dry Edible Bean Cultivars with High-Yield Potential, Disease Resistance, Stress Tolerance, and Improved Canning Quality Suitable for Michigan Production

Principal Investigator:

Valerio Hoyos-Villegas and Evan Wright

Plant, Soil and Microbial Sciences

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Jim Palmer

Manager, MCIA

palmerj@michcrop.com

Justification:

Michigan is the second largest producer of dry bean in the U.S., contributing significantly to the Michigan economy. To compete with other major crops, dry bean yields must remain competitive and meet Michigan industry standards for both growers and processors. To achieve this goal, a cooperative effort by researchers, producers, and the elevator industry is required. Michigan bean producers expect high-yielding, disease resistant cultivars with appropriate maturity, upright architecture for direct harvest, and good canning quality. These target traits are used as selection criteria to guide cultivar development in the MSU dry bean breeding program. Sustained research and breeding efforts are required to continuously increase dry bean yield potential to deliver maximum profit for growers. Breeding lines must be evaluated across years and locations to ensure selection of new cultivars based on superior performance that is stable across the major production region of Michigan. Plant architecture continues to be a major breeding target for all major market classes (black, navy, and small red). Plants with upright architecture and a long-hypocotyl that maximizes pod-to-ground distance to facilitate efficient direct harvest are preferred to minimize yield and seed quality losses as well as provide avoidance to white mold. Breeding for disease resistance affecting dry bean production continues to be a priority. White mold continues to be a major disease; while avoidance provides some tolerance, physiological resistance is still necessary as narrow row widths exacerbate mold development. New methods such as genomic selection are being explored to better combat this disease. Root rot is the second most important disease hindering dry bean production in Michigan. Bean cultivars lack high levels of root rot resistance, specifically large-seeded Andean types. Significant effort has been invested in recent years to identify and incorporate improved levels of resistance into kidney beans. Disease resistance to common bacterial blight (CBB), anthracnose, and bean common mosaic virus (BCMV) continue to be incorporated using phenotypic and molecular tools into all market classes. An additional resistance gene for anthracnose (Co-5) has been successfully introgressed from un-adapted germplasm into agronomic black bean breeding lines, and efforts are underway to further deploy it into navy bean. Seed quality traits such as color retention in black beans, slow darkening in pintos, seed shape in white kidneys, and color uniformity in reds and pinks are strictly selected to meet commercial standards. Selection for efficient dry down at maturity to reduce the need for crop desiccation is performed. Research and collaboration continue to identify new uses for dry bean to increase consumption in the U.S. This effort focuses on bean flour, fast cooking times, and other food applications. A continued investment to maintain an active breeding program at MSU offers an opportunity to deliver competitive cultivars which meet the needs of dry bean producers and address short-term and long-term issues like seed quality, genetic diversity, sustainability, and the opportunity to expand bean production.

Objective and Hypothesis:

Select for high-yield, disease resistance, appropriate maturity with uniform dry down, upright architecture for direct harvest, and good canning quality in major bean market classes grown in Michigan. Continued evaluation of navy and black bean classes in key target environments such as Huron county will ensure identification of stable lines across major production areas. Incorporate BCMV and anthracnose resistance into black, navy, pintos, great northern, reds, and pink seed classes. Continue to improve root rot resistance in kidney and yellow bean market classes. Develop new molecular tools to assist in marker-assisted selection (MAS) for major diseases. Continue to refine genomic prediction models for more complex quantitative traits (e.g., yield, mold, canning quality). Deploy new high-throughput phenotyping tools to efficiently phenotype for plant architecture, disease resistance, and maturity. Maintain the genetic integrity and purity of varieties at advanced stages of breeding for overall uniformity and quality.

Procedures:

Develop new germplasm through elite-by-elite crosses. Evaluate early generation nurseries using phenotypic and MAS to efficiently advance breeding lines resistant to anthracnose and BCMV in black, navy, pinto, pink, small red, great northern, and kidney bean classes. Evaluate replicated yield trials for each of these major market classes and collaborate in statewide trials to identify high-yielding varieties with improved disease resistance and uniform dry down suitable for direct harvest. Introgress the Co-5 gene into additional market classes such as navy and small reds to enhance durability of anthracnose resistance. Genomic prediction models for yield and canning quality, particularly in black beans, will also be explored. High-throughput phenotyping using unmanned aerial system (UAS) will be deployed to estimate maturity and plant height.

Progress to date:

The MSU dry bean breeding and genetics program conducted 24 yield trials in 2024 in ten market classes across 5 locations and participated in the evaluation of the Cooperative Dry Bean, Midwest Regional Performance, National Drought and National Sclerotinia (NSI) Nurseries in Michigan. In Puerto Rico, we evaluated ~1617 early generation breeding lines as part of the W4150 collaborative winter nursery. Yield trials were planted (June 8-14) and received an average of 11.7" of rain (June - Sept). Adequate moisture at planting led to uniform emergence, with continued rainfall throughout the season, excessive at times in some locations. Abnormally warm and dry September weather facilitated an early and efficient harvest. Navy and black bean yield trials were also evaluated on-farm in Huron County at two locations, one under heavy white mold pressure, while kidneys and yellows were tested in Montcalm County. Expanded on-farm testing has proven useful in recent seasons to ensure broad adaptation of advanced breeding lines. Other research focused on halo blight tolerance in light red kidney beans in collaboration with Dr. Chilvers' group to characterize current cultivars and pre-commercial germplasm from both public and private breeders. UAS was used to estimate key agronomic traits plant height and maturity. Genomic selection for white mold avoidance in black and navy bean market classes continued based on a training population that now spans four seasons of yield and disease data. Prediction models for yield and canning quality will be developed and refined in forthcoming seasons.

Funds requested: \$50,000

Matching Funds:

Royalty funds from current MSU varieties; MSU continues to provide field, greenhouse and lab facilities and equipment; Continue to collaborate with PRAB to conduct statewide testing of elite MSU breeding lines with funding from MDARD Block Grant and MBC; Funds from NSI will be leveraged for research on white mold.

Impact on Michigan agriculture:

New high-yielding, good quality, and disease resistant bean cultivars suitable for direct harvest will help sustain the Michigan dry bean industry estimated at a farm-gate value of \$140 million with an additional \$25 million in handling and shipping the commodity. Impact will be measured by known acreage of varieties grown in Michigan. Breeding for high yield, disease resistance, appropriate maturity, uniform dry down, and N use efficiency will maximize bean producer profitability by reducing inputs and will significantly improve environmental sustainability and the ecological impact in the Great Lakes watershed.

Principal Investigator Signature:



Projects Funded

MCIA project number: MSU PD #73711

Title: Supporting Winter Rye and Barley Production in Michigan for Food, Feed, & Craft Beverages

Principal Investigator:

Dr. James DeDecker

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Cooperators:

Dr. Brook Wilke

MSU Kellogg Biological Station
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Justification:

Winter cereals are well suited for Michigan's climate, but summer annual crops (i.e. corn and soybean) still dominate our farm landscapes. Fall planted cereal crops are beneficial in cropping systems either as a main crop or as a cover crop due to their potential to enhance soil health, subsequent crop yields, and environmental quality through mechanisms such as carbon sequestration and reduction in erosion and nutrient loss to surface and ground water (Snapp et al. 2005). For these fall-planted crops to be economically competitive with corn and soybeans, further research is needed to improve genetics, evaluate variety and breeding line options, expand markets, and optimize management.

Objectives and hypotheses:

1. Conduct winter barley and rye variety trials at two locations in Michigan. Hypothesis: Yield and agronomic results will vary based on the interaction between variety and location.
2. Evaluate quality characteristics of winter barley and rye varieties for various end uses. Hypothesis: Quality characteristics will vary between varieties and locations (no interaction).

Procedures:

Replicated winter barley and rye variety trials were planted in Sept-Oct 2024 at Kellogg Biological Station (KBS) in Hickory Corners (barley and rye), the Upper Peninsula Research and Extension Center in Chatham (UPREC, rye), and on a commercial farm in Delta Co. (barley). Thirty-nine barley varieties were sourced through the Winter Malting Barley Trial (WMBT) coordinated by the University of Minnesota and commercial suppliers, while 17 rye varieties were sourced from commercial suppliers only. The experimental design for both trials is a horizontal lattice with three (barley) or six (rye) replications. Individual plots measure 5 by 15 feet and will be harvested using a plot combine. Our team will manage barley according to the WMBT network protocol, including planting, soil fertility and pest management. The rye trial will be managed similarly but includes additional replications to permit initial comparison of standard management practices with a more intensive system incorporating fungicide and growth regulator. We also planted a small rye seeding rate trial (3 varieties X 5 seeding rates) at both locations this fall to begin investigating seeding rates for open-pollinated vs. hybrid rye. Infield measurements will include winter survival, heading & maturity date, height, and disease levels. Grain weight, test weight and moisture will be measured immediately after harvest. Grain samples will be composited from each variety for quality analysis. The Grain Quality Lab at UPREC will process the grain samples, and barley varieties that meet certain quality standards will be sent to the USDA Cereal Crops Research Unit for micro-malting and analysis. In the fall of 2025, we will follow the same protocols for establishing the next year's (2025-26) winter barley and rye trials.

Progress to date:

Wilke and DeDecker have been leaders in barley, rye, and oat research at Michigan State University since 2015, including conducting variety, agronomy and sensory studies as well as outreach prioritized by the industry. With ongoing support from MCIA, we are well positioned to continue this important work in service of Michigan growers, processors and the broader small grains value chain. Results from previous trials are available on the MSU Malting Barley website. We've conducted ongoing winter barley variety trials since 2016 through a partnership with the University of Minnesota's Winter Malting Barley Trial (WMBT) network and support from MI Craft Beverage Council and the American Malting Barley Association. Support from MCIA was used to complete grain quality analysis for the 2023-24 WMBT and to establish two locations for the 2024-25 WMBT. We conducted rye variety trials in 2020-23 with support from Michigan Craft Beverage Council, but did not have funding to plant a trial in fall of 2023. Support from MCIA has been used to source seed and establish two locations of rye variety and agronomy trials at KBS and UPREC in fall of 2024 for 2025 harvest. We are also working closely on agronomic management with farmers growing rye for Mammoth Distilling as they expand production of rye distillate in Michigan.

Funds requested: \$10,858.14

Matching Funds:

A \$39K proposal was submitted to MI Craft Beverage Council this fall to leverage MCIA support for rye variety trials through additional complimentary research focused on updating cereal rye agronomic best management practices (nitrogen rate, seeding rate, fungicide and growth regulator) in the context of Michigan environments and adapted varieties (hybrid and OP). This proposal is still under review, so should not be considered as match, but is certainly complimentary. Wilke and DeDecker are collaborators on a winter barley hardiness project funded by the Michigan Craft Beverage Council (\$40K, 2024-25) led by Dr. Emily Holm. This project is leveraging the winter barley and rye variety trials planted with MCIA funding. Funding has also been secured annually from the American Malting Barley Association (plus supplements from Bells Brewing and Michigan Brewers Guild) totaling \$5-10K per year since 2019 to support winter barley variety and agronomic research.

Impact on Michigan agriculture:

Rye and winter barley are underutilized in Michigan, in part due to the lack of information on variety suitability for specific end uses. The distilling and cover crop markets for rye are growing, but much of the seed available does not have variety identified. Previous research on rye varieties conducted by Wilke, DeDecker, and colleagues found up to threefold differences in yield between rye varieties, with substantial quality variation as well. Farmers have a lot to gain by understanding the yield, agronomic and quality characteristics of rye varieties, and choosing the best fit for their end use.

Winter barley can be a phenomenal crop for the southern part of Michigan, with high yield potential and the realistic possibility of double cropping soybeans or dry beans after barley harvest. Winter barley is also feasible as far north as the southern Upper Peninsula, as documented by our 2023/24 winter barley trials. There is renewed interest in barley as an ingredient to satisfy local and national malting/brewing/distilling/baking demand. Breeders at several universities (e.g. Ohio State, Minnesota, Virginia Tech, Nebraska, Cornell) are developing improved winter barley varieties for malting and feed end uses, and these new lines need to be tested in Michigan alongside commercial varieties to quantify relative productivity and potential for various end uses.

As we identify the best varieties of winter barley and rye for various end uses, we will work closely with MCIA, Michigan Agriculture Advancement, MSU Extension, Michigan Craft Beverage Council, and other partners to share research results as well as gather feedback on additional research needs for enhancing the profitability of these crops.

Budget: (attachment)

Principal Investigator Signature:



Projects Funded

MCIA project number: MSU PD #73705

Title: Supporting Adoption of Elite Oat and Barley Varieties in Michigan

Principal Investigator:

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Justification:

This proposal speaks to MCIA's Priority A under the Oat Research and Barley Research categories. Spring oats and barley are well adapted to the relatively short growing season and cool summertime temperatures found in Michigan, especially the Northern Lower and Upper Peninsula. Approximately 50,000 acres of oats and 8,000 acres barley were planted in the state during 2023 (USDA-NASS). Oats and barley are commonly grown as a nurse crop or rotational crop. However, growers' interest in oat and barley production for market has increased again in recent years. This is being driven by several factors, including emerging niche markets for malting, distilling and milling, as well as erratic fall weather more frequently complicating winter wheat planting across Michigan.

Farmers considering transitioning acres to oats or barley have been somewhat hesitant due to the previous lack of research-based information regarding oat and barley variety performance in Michigan. In addition to local agronomic, yield and test weight data, producers also require information on feed, milling and malting quality of available oat and barley varieties to enhance marketability and value in the craft beverage and food-grade grain sectors.

After several years of oat and barley variety trials in cooperation with MCIA, the national Uniform Early Oat Performance Nursery (UEOPN) and Eastern Spring Barley Nursery (ESBN) projects, we now have sufficient evidence highlighting superior oat and barley varieties available to MCIA members. However, seed producers, grain growers and processors often still require direct experience with new varieties at scale before they consider producing certified seed or planting large acreages.

Objectives and hypotheses:

Objective: Trial elite oat and barley varieties adapted to Michigan on commercial farms and in craft malt houses to encourage adoption and diversification.

Hypothesis: Significant differences in agronomic qualities, disease resistance, yield potential, test weight and quality will be observed between check and new oat and barley varieties.

Procedures: We will once again partner with Michigan growers, maltsters and millers to conduct a three-location oat and barley strip trial at the MSU Upper Peninsula Research and Extension Center (UPREC) in Chatham, MI and on two commercial farms supplying Michigan malthouses or millers. The trial will include elite commercial oat and barley varieties (3-4 each) identified in past research and solicited from MCIA, breeders, seed companies and end users like maltsters and millers (Star of the West for oats). The experimental design will be a RCBD with three replications. Oats and barley will be planted in their own respective blocks/fields. Plot size will be at least 2.5 acres to accommodate minimum malting batch sizes. Planting, in-season management, and harvest will be conducted by staff from UPREC at the Chatham location and by cooperating farmers at the other two locations.

Measurements of stand establishment, crop disease or pest damage, average heading date, straw height, lodging, yield and test weight will be recorded for each variety in the field. In-season observations and data analysis will be completed by UPREC staff. Harvested samples will be analyzed for feed, milling and malting quality, including the presence of mycotoxins, and barley samples will be malted at pilot scale. Post-harvest analysis for quality parameters will be completed at the UPREC Malting Barley Quality Lab (grain quality) and the USDA CCRU (malt quality). All data will be analyzed and interpreted using appropriate statistical methodology.

Progress to date:

In 2024, we conducted a three-location spring malting barley and oat strip trial with support from MCIA. This work was leveraged and complemented by small plot oat and barley trials at UPREC in 2024 with entries and funding from three private seed companies in addition to MCIA entries. Preliminary data from the strip trials is summarized in Tables 1 and 2 below. Unfortunately, yield data is not available from the Johannesburg location due to a change in farm management staff and related miscommunication. In general, Esma and HudsonNY barley performed similarly to our check variety, LCS Odyssey. Both Esma and HudsonNY were slightly earlier than Odyssey. HudsonNY was notably taller and Esma yielded slightly more than the others. RC Amaze was earlier than the other oat varieties. AAC Basil and RC Amaze yielded more than the other varieties, but also had lower test weight. Additional grain and malt quality data is forthcoming.

Funds requested: \$16,803.43

Matching Funds:

While the support we have received from seed companies for small plot trials cannot be considered a direct match for the proposed MCIA strip trials, these projects are certainly complimentary. The small plots give us access to the newest germplasm available and allow initial evaluation of a larger number of entries, while the strip trials provide data on the most promising varieties currently available to growers at commercial scale.

Impact on Michigan agriculture:

Providing local data on oat and barley varieties for Michigan will aid variety selection and help farmers and grain buyers be more confident in growing and contracting these crops. Increased diversity from adding spring small grains will help to mitigate financial and environmental risk on farms. These crops may also improve climate resilience by serving as an alternative to wheat when adverse fall weather prevents timely winter wheat planting. Additionally, conducting variety performance trials will provide data to breeders of spring small grains to help speed the development and release of new superior varieties to MCIA members.

Budget: (attachment)

Principal Investigator Signature:



Projects Funded, continued

Table 1. Malting Barley Strip Trial Results

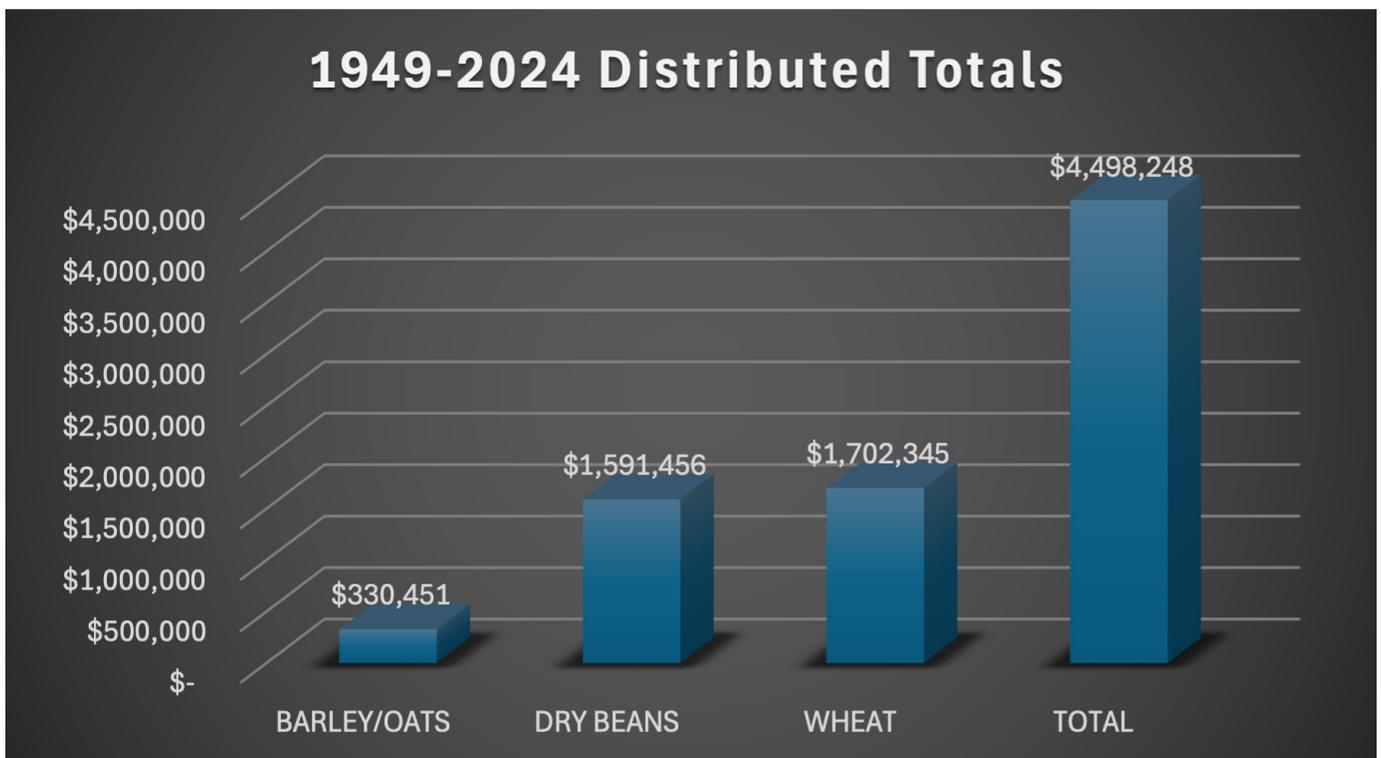
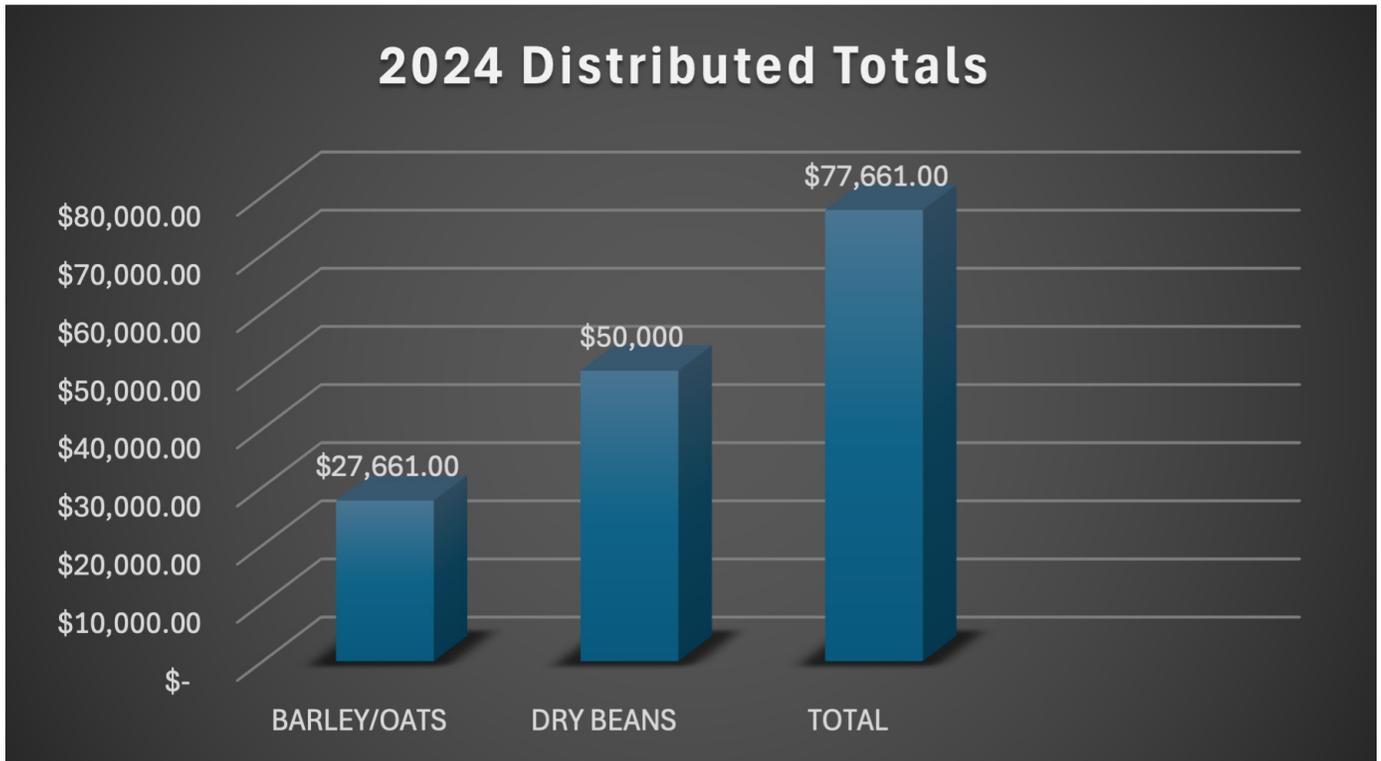
Location	Variety	Heading Date	Height (in)	Yield (bu/acre)	Test Weight	Disease (1-5)	Plump (%)	Thin (%)	Crude Protein (%)	Germination Capacity (%)	RVU	DON (ppm)
Chatham	LCS Odyssey	7/17	21.3	76.4	46.0	1.5	96.5	0.36	11.6	TBD	TBD	TBD
Chatham	Esma	7/16	19.5	79.9	50.1	1.6	95.3	0.61	11.7	TBD	TBD	TBD
Chatham	HudsonNY	7-14	27.3	71.6	48.3	1.5	95.7	0.56	12.3	TBD	TBD	TBD
Johannesburg	LCS Odyssey	7/4	24.0	NA	TBD	1.3	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	Esma	7/1	23.3	NA	TBD	1.7	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	HudsonNY	6/30	30.0	NA	TBD	1.2	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	LCS Odyssey	NA	NA	49.7	42.6	NA	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	Esma	NA	NA	49.9	39.0	NA	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	HudsonNY	NA	NA	52.1	40.7	NA	TBD	TBD	TBD	TBD	TBD	TBD
Average	LCS Odyssey	7/10	22.7	63.1	44.3	1.4	96.5	0.4	11.6	TBD	TBD	TBD
Average	Esma	7/8	20.9	64.9	44.6	1.7	95.3	0.6	11.7	TBD	TBD	TBD
Average	HudsonNY	7/7	28.7	61.9	44.5	1.4	95.7	0.6	74.00	TBD	TBD	TBD

Table 2. Oat Strip Trial Results

Location	Variety	Heading Date	Height (in)	Yield (bu/acre)	Test Weight	Disease (1-5)	Plump (%)	Thin (%)	Crude Protein (%)	Germination Capacity (%)	RVU	DON (ppm)
Chatham	Rushmore	7/9	34.8	48.2	38.1	2.3	TBD	TBD	TBD	TBD	TBD	TBD
Chatham	AAC Basil	7/11	30.3	59.2	35.3	2.5	TBD	TBD	TBD	TBD	TBD	TBD
Chatham	AAC Reid	7/12	35.3	65.2	38.3	1.0	TBD	TBD	TBD	TBD	TBD	TBD
Chatham	RC Amaze	7/3	28.8	58.1	37.1	2.5	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	Rushmore	6/29	33.1	NA	TBD	3.3	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	AAC Basil	7/1	25.5	NA	TBD	3.8	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	AAC Reid	7/3	27.0	NA	TBD	3.3	TBD	TBD	TBD	TBD	TBD	TBD
Johannesburg	RC Amaze	6/24	31.0	NA	TBD	2.5	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	Rushmore	NA	NA	87.7	33.0	NA	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	AAC Basil	NA	NA	89.4	29.8	NA	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	AAC Reid	NA	NA	72.4	30.6	NA	TBD	TBD	TBD	TBD	TBD	TBD
Hickory Corners	RC Amaze	NA	NA	94.2	30.2	NA	TBD	TBD	TBD	TBD	TBD	TBD
Average	Rushmore	7/4	33.9	68.0	35.6	2.8	TBD	TBD	TBD	TBD	TBD	TBD
Average	AAC Basil	7/6	27.9	74.3	32.6	3.2	TBD	TBD	TBD	TBD	TBD	TBD
Average	AAC Reid	7/7	31.2	68.8	34.5	2.2	TBD	TBD	TBD	TBD	TBD	TBD
Average	RC Amaze	6/28	29.9	76.2	33.7	2.5	TBD	TBD	TBD	TBD	TBD	TBD

MSU Research Funded

Funds collected on sales of Foundation Seed are used to support these critical areas of research at MSU. Programs funded help provide new and improved varieties as well as key yield and agronomic research. Research proposals are funded based on the established MCIA research priorities. Yearly funding and historical support history is listed below.



MCIA Programs

- » **Seed Certification** — Traditional certification for public varieties in cooperation with other state agencies within the United States.
- » **Quality Assurance (QA)** — Quality verification system for private labeled seed marketed by brand name.
- » **Identity Preserved (IP)** — Verification and traceability system for grain with added value traits.
- » **Source Identified** - Verification system for native species/germplasm to show adaptability based on genetic origin and seed production location.
- » **Forage and Mulch** — Inspection program to prevent the spread of noxious weeds in feed material and mulch used in plant seedings.
- » **Compliance Audits** — A sequence of questions and evaluations used to document compliance to guidelines or standards.

MCIA Certifications and Accreditations

- » **MDARD** — The Michigan Department of Agriculture and Rural Development(MDARD) authorizes MCIA to verify that all seed certified and sold in Michigan meets the State of Michigan standards.
- » **AOSCA** — MCIA is a member of the US and international seed certification agencies collectively known as AOSCA (Association of Official Seed Certification Agencies).
- » **OECD** — MCIA is authorized by USDA to verify that seed shipped to the European Union (and other member countries) meets the minimum OECD (Organization for Economic Co-Operation and Development) certification and shipping standards.
- » **USDA** — MCIA is authorized as the official certification agency for interstate seed sales according to the Federal Seed Act.
- » **SCST** — MCIA is a member of the Society of Commercial Seed Technologists (SCST), an organization of professional seed analysts and labs across the US and Canada.
- » **ASL** — The MCIA seed lab is accredited by USDA to perform official testing as an Accredited Seed Lab (ASL).
- » **BRCGS** — Brand Reputation through Compliance of Global Standards. The MCIA processing plant is third party audited and an approved food safe handler with an AA+ rating.
- » **Organic Handler** — The MCIA processing plant is designated a Certified Organic handler audited yearly by Minnesota Crop Improvement Association.
- » **FDA** — MCIA is a registered food facility under authority of the FDA.
- » **MDARD** — MCIA has two Commercial Pesticide Applicators in the seed plant.
- » **RST** — MCIA employs two Registered Seed Technologists.

Events Attended

Our team was able to take advantage of many in-person field days and seminars in 2024 as well as attend several virtual events. We used these opportunities to listen and learn as well as network in the ag community. A list of some events attended is below:

- » MABA Winter Conference and Trade Show
- » Independent Professional Seedsman Association Conference
- » AOSCA Regional and Annual Meetings
- » AOSA/SCST Annual Meetings
- » ASTA National Meeting
- » Wheat Growers Summer Field Day and Annual Meeting
- » Soybean Quality Workshops by SODAK
- » Saginaw Bean and Beet Field Day
- » Thumb Ag Day
- » Agro-Expo
- » Great Lakes Crop Summit
- » Seed Treatment Seminars
- » Fumigation Seminars
- » Facility Pest Control in Agriculture
- » SCST Organizational Webinar
- » Great Lakes Expo for Fruits and Vegetables
- » Purity Short Course at Iowa State
- » ISTA Rules and Vigor Testing Seminar
- » Grass Seed Structures Webinar
- » OECD Seed Scheme Meetings
- » Rural Education Day
- » SODAK Quality Assurance Seminar
- » USDA Seed School

2024 Field Services Report

In 2024 MCIA field inspections totaled 76,918 acres, which is a 26% decrease from the previous year. Corn, wheat, and soybeans acres were all down from the previous year. Inspection programs include: OECD certification for international seed sales, AOSCA certification for in-state and national seed sales, Quality Assurance (QA) for brand labeling of seed, and Identity Preserved (IP) for grains marketed for specialty products. The focus of MCIA field inspections is to provide official unbiased information as it relates to genetic purity and seed quality for certification. Field inspections are an opportunity to identify and isolate potential problems in the field to keep the final product pure. This step has been valuable to companies as well for their internal quality management system. MCIA inspectors can serve to collect and input specific information into their data systems.

Crop Year

It could be said that 2024 was the year without a winter. Everything including perennials seemed to be 2 to 3 weeks ahead of schedule. Some cool season crops had producers testing the windows and planting as early as March. Some producers planted corn and soybeans in late April, but intermittent rains prevented early May plantings. Cool weather prevailed in this time period keeping seeds un-emerged for 3 to 4 weeks, protected from any frost injury. While crops progressed with heat units ahead of schedule, rainfall events always trump harvest timing independent of maturity. Overall summer moisture was normal to dry and heat was normal to above average. Fall harvest arrived slightly early with dry conditions. Some seed lots suffered when they were harvested at 9% moisture or less.

Small Grain

In 2024, 6,404 acres of wheat were inspected, which is a 33% decrease from last year. The acreage split between red and white wheat was 65% red and 35% white. Whitetail continues to be the most popular wheat variety. Wheat was planted late but winter survival was good with warmer winter temperatures. May was dry so there was very little disease pressure. Plants were on track for a July 4th harvest, but sporadic rains delayed harvest 7 to 10 days. Spring planted grains followed a similar pattern with little disease pressure. Many fields benefited from the early planting. Triticale, rye and oat acreages were up with certification acreages being 944, 567, and 671 respectively. Barley acres were down with only 169 acres certified.

Corn

In 2024, 45,245 acres of corn were inspected, representing a 32% decrease from last year. Much of this decrease is attributed to products ineligible to be sold in foreign markets due to unapproved traits. MCIA continues to perform daily inspections on seed corn fields serving two purposes: assisting in pollen management and verification for certification. Fields were planted in good sequence allowing a good maturity spread for timely pollen management. Corn detasseling was steady and predictable with generally dryer conditions through the pollination window. The majority of seed corn is inspected according to accreditation guidelines for labeling as USA Certified. The accreditation process involves field inspection with an audit review for other seed certification related functions. MCIA continues to assist the State of Michigan in collecting corn tissue samples for the purpose of disease inspection. Samples are collected after the pollination period when diseases are more visible.

Dry Bean

Dry edible bean acreage increased 68% from last year, totaling 629 acres. Approved acreages consisted of 52 acres of kidney beans, 50 acres of navy beans, and 528 acres of black beans. Plantings were timely and plant growth was good, but dry bean seed development was affected by higher temperatures. As a result, yields were a bit disappointing. There were a few isolated cases of anthracnose which affected one seed field. Blight infections were low with all fields passing for the disease. Lab testing has shown similar results.

Soybean

Soybean acreage was down 15% from the previous year. It included 8,004 acres of Quality Assurance, and 14,027 acres of interagency and service inspections. Some plantings were early. The summer heat brought on much plant growth which created a suitable environment for white mold. Soybeans are maturity daylight sensitive. The pollination window is a function of planting date and decreasing amount of daylight. So even though they were planted early, harvest was only minimally affected. Conditions in early fall were dry which makes harvesting quality seed a challenge. There is always some variation in maturity within a field or sometimes even on a plant. The extended dry period did not allow for even maturity of seeds. Some tree leaves were even wilting and falling prematurely. Some seed lots were harvested as low as 8% moisture. Seeds which dried to 8% and then returned to higher moistures also suffered from split seed coats with lower seed integrity. Most soybean inspections are for Quality Assurance and are offered to seed companies for the evaluation and documentation of private genetics. Early soybean inspections focus on crop management information such as weed escapes, volunteer corn, diseases, insect activity, and blossom color. These inspections can also be used to verify trait purity in new herbicide resistant varieties following herbicide applications. A fall inspection is performed to identify off-types and evaluate the varietal purity. MCIA continues the real time electronic inspections where information is documented on an iPad with an app specific for seed inspections.

Summary

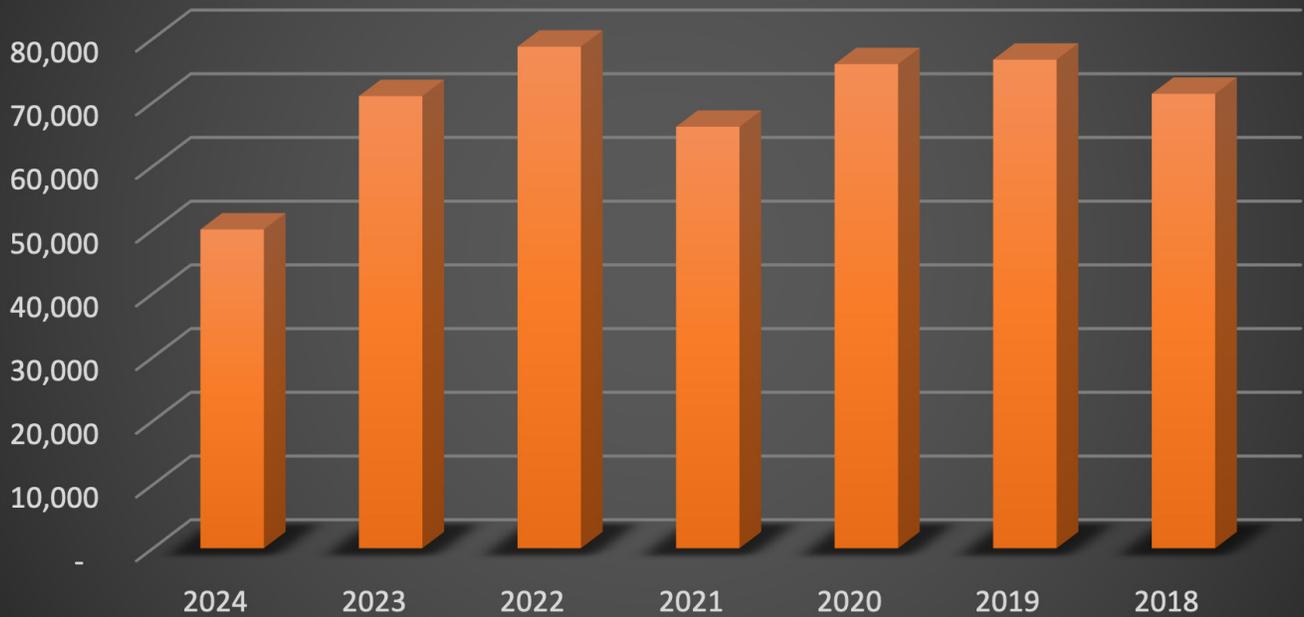
We all live in a world of ever-changing technology. It should not go un-noticed the significance of the digitalization of all MCIA inspections. This has multiple benefits. It allows instantaneous reporting, saves time and money mailing or driving, saves time and space in the office, provides instant access for inspectors to new fields which might be late additions, and provides exact GPS and Google Earth field locations for inspectors. This is an example of MCIA's dedication to providing seed producers with the best information possible. We look forward to providing it to you in 2025.



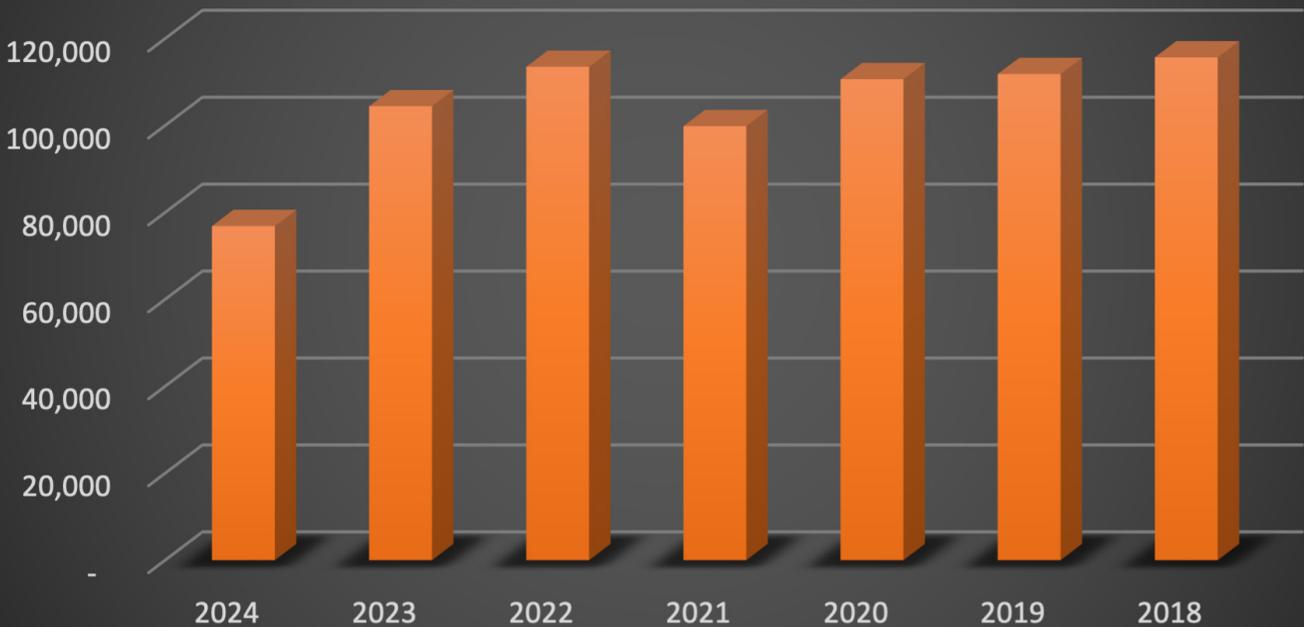
Robert Robinson inspects seed corn in Montcalm County.

Inspection Acres

Total Certified Acres Inspected



Total Inspected Acres



Inspection Acres by Variety

White Wheat Acreage

VARIETY	2022	2023	2024
A/C Mountain	18	104	0
Jupiter	343	402	440
Moonlight	153	99	0
Whitetail	827	660	698
Private	66	74	45
QA Wheat			51
Service Wheat	982	783	897
Total White	1407	1339	2131

Red Wheat Acreage

VARIETY	2021	2022	2023
VARIETY	2022	2023	2024
MCIA .357	20	120	140
Sunburst	268	306	201
Private	586	584	238
QA Wheat	1689	1467	1383
Service Wheat	1363	2819	1932
Total Red	3926	5296	3894
Wheat Total	5333	6635	6025

Oat Acreage

VARIETY	2022	2023	2024
Esker 2020	31	22	23
George	14	0	0
Hayden	238	173	219
Horsepower	75	47	0
Ida	390	265	343
Jerry	20	0	0
Rushmore	19	73	86
Private Oats	17	0	0
Oats Total	804	580	671
Private Oats	0	17	0
Oats Total	673	804	580

Barley Acreage

VARIETY	2022	2023	2024
Bowers	248	236	121
LCS Calypso	13	12	7
LCS Odyssey	0	20	20
Rasmussen	18	20	20
QA Barley			1
Total	279	288	169

Colored Bean Acreage

VARIETY	2022	2023	2024
Alpena	0	0	50
Charro	0	15	0
Denali	0	0	27
Snowdon	136	0	25
Adams	648	0	0
Black Pearl	0	0	3
Zenith	95	290	494
Zorro	30	20	30
Cayenne	24	0	0
QA	149	49	0
Total	1082	374	629
Colored Bean Total	1082	374	629

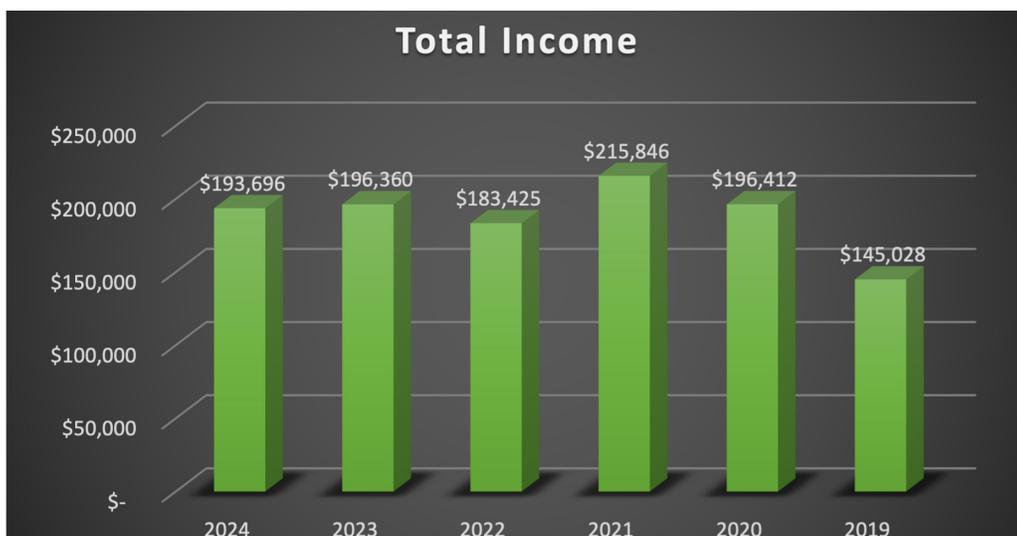
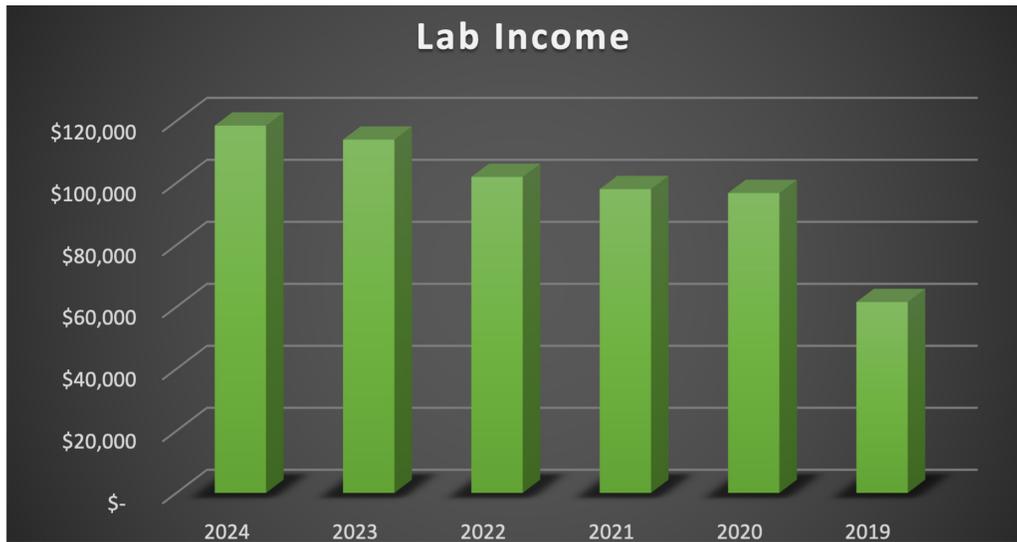
Soybean Acreage

VARIETY	2022	2023	2024
IA 1029	23	41	0
IAS 19C3	0	40	40
IA 2102	80	0	0
IA 3054RA12	0	20	38
Private	0	1925	0
Total	103	101	78
QA	10736	8651	8004
Soybean Total	10839	10677	8082

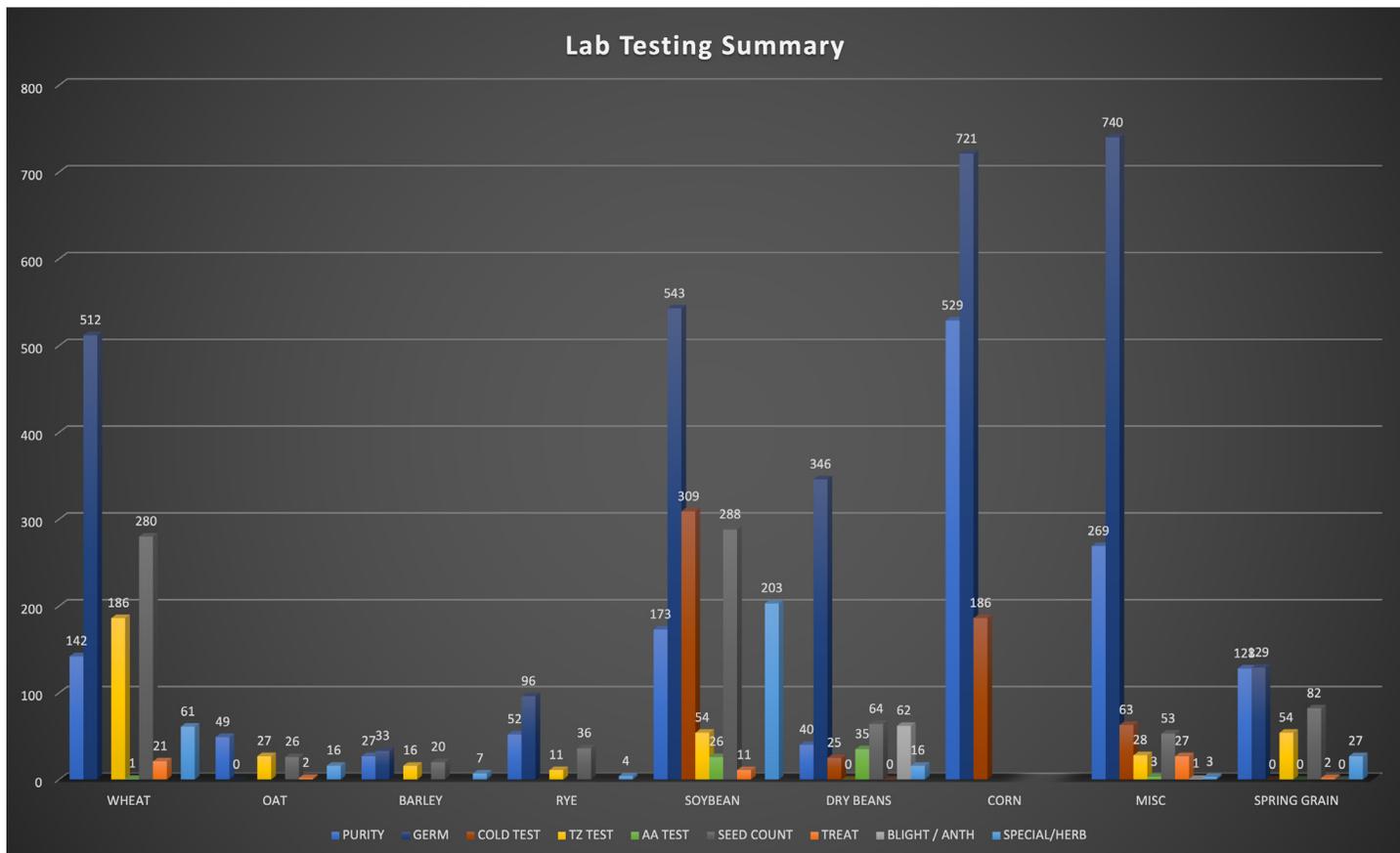
Miscellaneous Acreage

VARIETY	2021	2022	2023
Corn	31277	39915	34060
Rye	421	232	269
Triticale	554	599	756
Identity Preserved	0	0	240
Interagency Cert.	3995	5283	2817
Identity Preserved	0	0	240
Interagency Cert.	3995	5283	2817
Grand Total	87143	98981	89751
Corn Disease Fields	201	227	288
Soybean Service	12819	14564	14467
Certified Mulch	397	220	261

Lab and Tag Income



Lab Testing Summary *(January 1 to December 31)*



CROP	PURITY	GERM	COLD TEST	TZ TEST	AA TEST	SEED COUNT	TREAT	BLIGHT / ANTH	SPECIAL / HERB	TOTAL TESTS
WHEAT	142	512		186	1	280	21		61	1,377
OAT	49	89+		27		26	2		16	169
BARLEY	27	33		16		20			7	40
RYE	52	96		11		36			4	138
SOYBEAN	173	543	309	54	26	288	11		203	1,514
NAVYS	5	47	7		4	13		8	2	203
BLACK BEAN	33	201	16		28	49		46	14	443
KIDNEY	2	98	2		3	2		8		157
CORN	529	721	186							1,931
GRASS	145	199	6	11	1	4				-
VEGETABLE	13	75								-
MISC.	111	466	57	17	2	49	27	1	3	465
TOTAL	1,281	2,991	583	322	65	767	61	63	310	6,790

Tagging Summary

Crop	Certified	Foundation	OECD	QA	White	Corn Co. Printed	2024 TOTAL	2023 TOTAL	2022 TOTAL
WHEAT	63,287	9,984	-	84,964		-	158,235	155,834	207,064
OATS	13,379	999	-	-	-	-	14,378	18,442	14,839
BARLEY	5,733	502	-	-	-	-	6,235	9,715	10,229
RYE	26,815	1,531	-	-	-	-	28,346	23,597	13,890
SOYBEAN			-	5,925	-	-	5,925	8,521	6,118
DRY BEAN	11,734	1,664	-	-	800	-	14,198	10,256	24,630
CORN	11,695		-	-	-	414,727	426,422	523,878	567,261
MISC.	42,136	1,800	-	-			43,936	46,408	29,040
Total	174,779	16,480	-	90,889	800	414,727	697,675	796,651	873,071

Year	Certified	Foundation	OECD	QA	White	Corn Co. Printed	Total
2024 Total	174,779	16,480	-	90,889	800	414,727	697,675
2023 Total	207,222	16,215	-	69,930	1,016	502,268	796,651
2022 Total	214,593	14,354	-	94,911	2,810	546,403	873,071
2021 Total	328,453	9,479	-	99,076	9,904	411,452	858,364
2020 Total	343,783	23,800	-	44,014	5,001	657,189	1,073,787
2019 Total	245,318	21,009	-	96,407	5,078	682,192	1,050,004
2018 Total	273,682	15,457	-	96,770	4,850	602,896	993,652
2017 Total	257,347	12,966	-	82,572	3,550	539,829	896,264
2016 Total	267,485	28,645	-	93,748	3,417	591,804	985,099
2015 Total	364,434	23,200	-	132,132	4,451	370,949	895,166
2014 Total	307,969	24,522	-	100,903	8,470	626,966	1,068,830
2013 Total	467,323	54,595	-	78,282	2,780	916,036	1,519,016
2012 Total	748,192	38,749	20,644	115,488	7,036	307,276	1,237,385
2011 Total	777,719	28,202	-	71,478	10,639	45,958	933,996

	2024		2023		2022	
Total Tags	696,875		796,651		873,071	
Company (corn) printed	426,422		523,878		567,261	
Approved (producer) printed	153,139	83%	170,840	87%	189,139	87%
MCIA/FD printed	118,114	17%	101,934	13%	116,671	13%

2024 planting season was considerably more variable than normal. Some areas were blessed with warm dry conditions which led to timely planting with no delays. Other areas were extremely wet with heavy Spring rains which prevented growers from planting on time or even at all. As summer unfolded the mixed bag of weather continued, however, most areas saw a good growing season and most growers harvested crops with above average yields. We saw the lowest number of wheat acres harvested of all time with less than 400,000 acres harvested. The yield, however, topped 87 bushels per acre which is a record yield for the State of Michigan. According to USDA figures, wheat planted in 2024 for harvest in 2025 was about 550,000 acres. Oat acres were up to 33,000 from 25,000 the year prior with an average yield of 66 bushels per acre which was equivalent to the 2023 oat yield. Soybean production was up 3 bushels over 2023 with a final average yield of 49 bushels per acre on 2.2 million acres. Corn acres were down slightly from 2023 at 2.25 million and the yield averaged 181 bushels per acre versus 168 in 2023. Dry edible bean planting in Michigan hit 250,000 acres up from 210,000 in 2023 with the yield equalling last year at just over 2,400 pounds per acre. Even with all the difficult weather Mother Nature threw at this crop, the old saying “rain makes grain” certainly was proven true.

Foundation Seed sales were a bit uneven in 2024. Barley sales were down substantially over 2023 while oat seed sales increased from 2024. Due to the significant amount of carryover seed which went unplanted in 2023 Foundation wheat seed sales fell almost 25% from the previous year. Foundation white wheat sales made up a majority of the drop, falling by almost 40%. Planting conditions were good in the fall of 2024 meaning there should be very little seed carried over for 2025. Dry edible bean sales rebounded from 2023. Black bean seed sales led the charge with an increase of 70% from the previous year. The strong market for black beans in general helped sales. Zenith made up a large percentage of these sales followed by the variety Zorro. Black Pearl and Kona, two new releases from MSU, were increased in 2024 and will be available for seed growers in 2025. Navy bean and dark red kidney sales were steady in 2024, while Powderhorn great northern, Beluga white kidney and Charro pinto lead the charge for the alternate classes. Interest in several of these new varieties is growing and we expect robust sales for 2025.

While our seed sales numbers were variable, our custom processing business thrived. Our skilled team takes great care to ensure all seed and food products leave our facility in perfect condition. Our customers have grown to appreciate and expect the excellent service and quality levels our team provides, which is what has been a driver of our success. In 2024 we were selected for a random audit from the BRC Certifiers. While we knew the audit was coming at some point, we did not know when. After a rigorous two-day audit in March of 2024, we exited the audit with a AA+ rating, the highest rating allowed on a random BRC audit. Along with the emphasis on food safety we also continue to maintain our organic handler status and seek out additional customers who would benefit from our services.

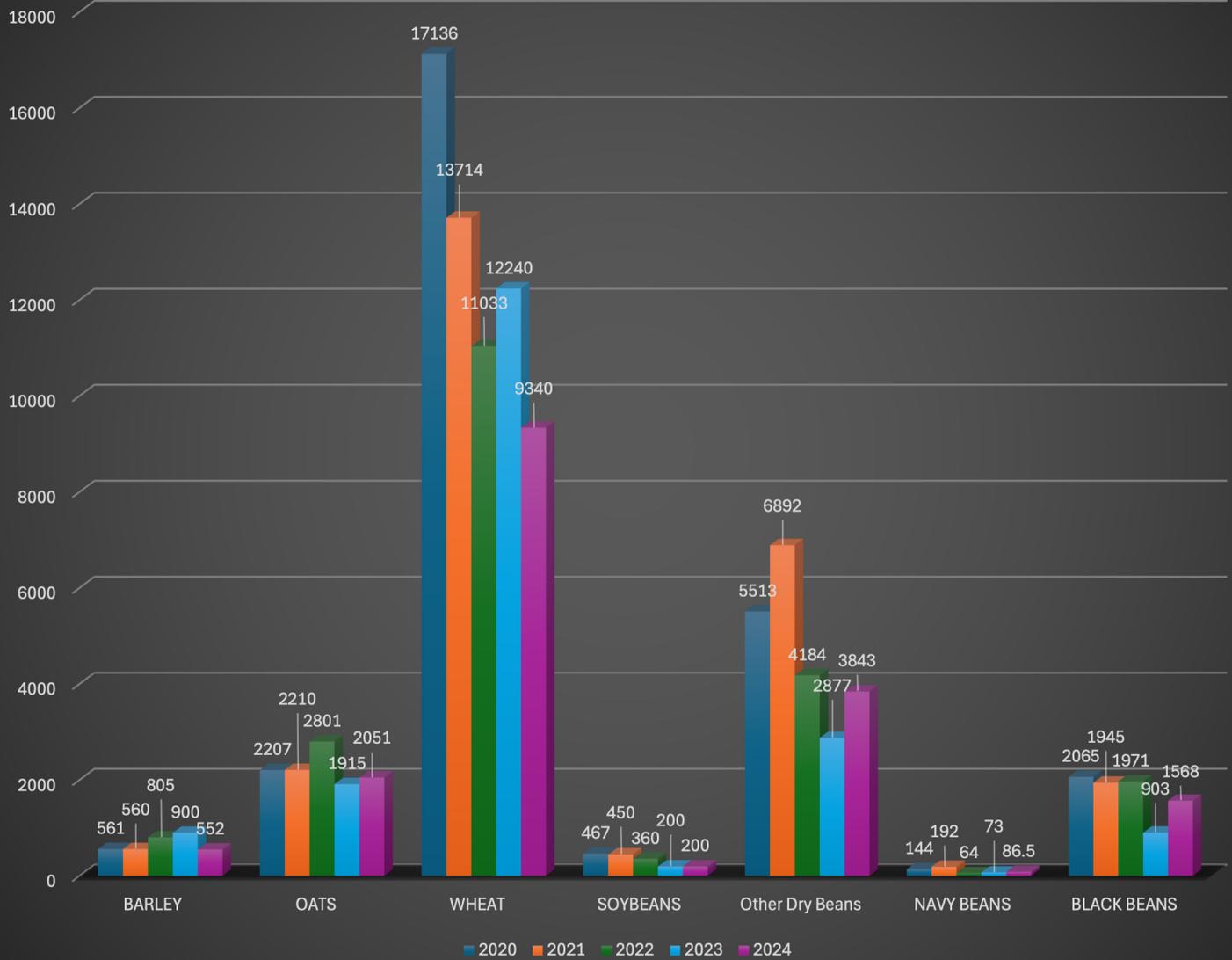
The 2024 season presented significant challenges and opportunities. While variable weather impacted planting and yields in some areas, many crops achieved record or above-average performance. Foundation Seed sales reflected these dynamics, with some categories declining while others, such as dry edible beans, showed solid growth. Meanwhile, our custom processing business demonstrated consistent excellence, earning the highest industry certifications and further solidifying our reputation for quality and reliability. Looking ahead to 2025, we are optimistic about continued growth, especially with the introduction of promising new seed varieties and our ongoing commitment to customer satisfaction and operational excellence.

Sales History Report

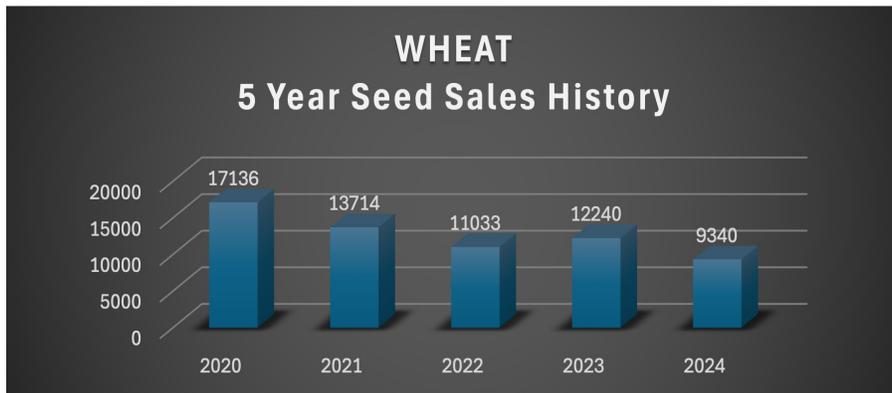
Year	Units in Bushels			50 lb. Units		100 lb. Units		
	Barley	Malting Barley	Oats	Wheat	Soybeans	Other Dry Beans	Navy Beans	Black Beans
1992	1888	-----	5858	34598*	13455*	3885	1629	523
1993	1611	-----	7021	30880*	12052*	2932	2589	763
1994	1719	-----	4245	28261*	12808*	3440	1416	690
1995	1209	-----	4228	30609*	11131*	3240	1813	1403
1996	1155	-----	4578	32593*	12046*	3287	2460	371
1997	1339	-----	4444	31263*	9105*	3390	1705	360
1998	1377	-----	5392	14643*	10926*	2103	546	772
1999	1448	-----	3751	12043	9555*	1676	712	724
2000	863	-----	3060	11868	6451	3658	444	451
2001	778	-----	2211	14089	4977	4044	204	188
2002	714	-----	2835	16300	4632	4725	207	596
2003	1015	-----	2853	18400	4385	3384	189	465
2004	975	-----	2896	18336	2782	4675	204	843
2005	1074	-----	2896	17046	2431	4804	242	767
2006	1225	-----	2526	18576	1615	3963	365	892
2007	740	-----	1546	22739	1426	2363	201	1330
2008	1065	-----	1833	22834	2018	3720	220	1360
2009	919	-----	1817	18120	1396	4563	65	1369
2010	1005	-----	1960	20045	2356	3518	111	2356
2011	1050	-----	2357	19444	3245	2375	53	1794
2012	1071	-----	1792	19319	2735	3311	30	1328
2013	1254	-----	1947	17273	1574	3173	0	1251
2014	1131	-----	1590	15949	557	5536	75	1977
2015	1635	405	2172	17717	580	7186	288	3447
2016	1064	639	1896	16132	609	3453	187	4429
2017	255	45	1439	14922	370	2360	73.5	3558
2018	479	120	1903	15191	864	2786	0	1116
2019	491	51	2094	16047	557	4532	0	1274
2020	561	6	2207	17136	467	5513	144	2065
2021	560	40	2210	13714	450	6892	192	1945
2022	805	0	2801	11033	360	4184	64	1971
2023	900	0	1915	12240	200	2877	73	903
2024	552	0	2051	9340	200	3843	86.5	1568
5 yr avg.	579	43	2243	14624	540	4781	80	1674

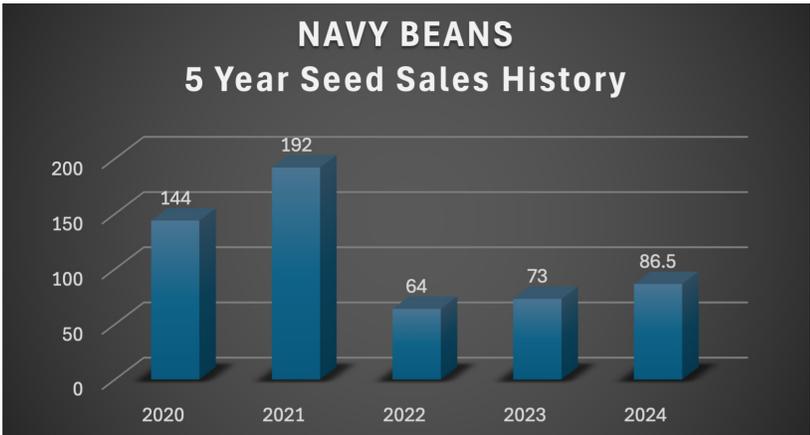
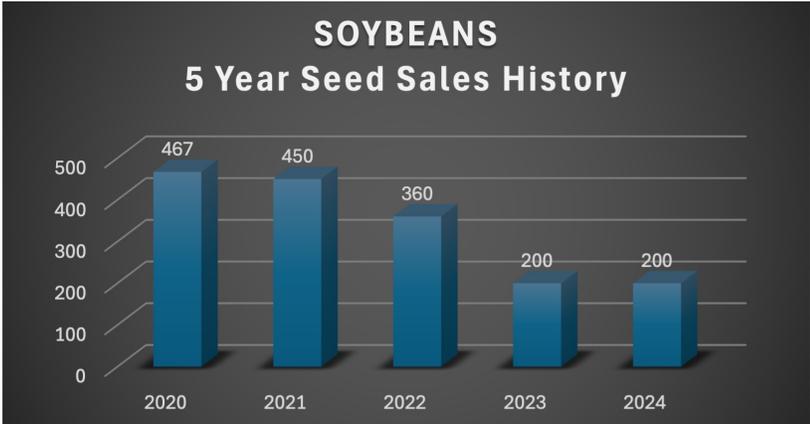
*denote units in Bushels

5 Year Seed Sales History



Sales History Report, continued





New Seed Varieties

Black Pearl — BLACK BEAN

- » Upright plant type suitable for direct harvest
- » Resistant to anthracnose.
- » High yielding black bean variety.
- » Medium maturity with good dry down qualities.
- » Rates as one of the best beans for color retention and canning quality.

Kona — BLACK BEAN

- » Type-II upright plant suitable for direct harvest.
- » Consistently one of the highest yielding black bean varieties.
- » Maturity similar to Zenith and a day earlier than Black Beard.
- » Susceptible to Anthracnose.
- » Acceptable seed size and canning scores.

MCIA Barracuda — RED WHEAT

- » Excellent yield potential.
- » Medium maturity.
- » Good straw strength.
- » Above average test weight.
- » Short and awned.

MCIA White Lightning — WHITE WHEAT

- » Excellent yield potential
- » Good test weight.
- » Stands well.
- » Good disease package.
- » Good choice for high management.

Foundation Seed Pricing

Commodity	Non-Member Price	Member Price	Member Discount Price	Research	Unit
Barley (48#)	\$22.50	\$18.00	\$0.90	Bushel	Bushel
Oat Seed (32#)	\$21.25	\$17.00	\$0.75	Bushel	Bushel
Soybean Seed (50#)	\$56.25	\$45.00	\$1.04	50 lbs	50 lbs
Large Dry Bean Seed (100#)	\$225.00	\$180.00	\$4.50	100 lbs	100 lbs
Medium/Small Dry Bean Seed (100#)	\$207.50	\$166.00	\$4.50	100 lbs	100 lbs

2025 MCIA Pricing

Prices subject to change as determined
by the MCIA board of directors

ALL CLASSES

	FEE
Germination (Corn, Beans, Small Grains)	\$15.00
Sand Germination (Soybean and Beans)	\$25.00
Germination (Small Legumes)	\$17.00
Germination (Turf or Pasture Grasses)	\$22.00
Germination (Vegetable)	\$22.00
Purity (Corn, Beans, Small Grains)	\$16.00
Purity (Small Legumes)	\$20.00
Purity (Turf or Pasture Grasses)	\$30.00
Purity (Vegetable)	\$23.00
<i>Mixtures – there will be a \$45.00 an hour charge for separation. Each component of mixture will be charged individually for germ.</i>	
Cold Test – Soil (Corn, Soybean, and Beans)	\$18.00
TZ Test (Small Grain and Soybean)	\$28.00
Fast Green/Pericarp	\$20.00
Saturated Cold Test	\$28.00
Herbicide Testing (Roundup and Enlist)	\$30.00
Soybean Non-GMO Test	\$100.00
Accelerated Aging Vigor Test (Corn, Beans, Small Grains)	\$18.00
Seed Count (Corn, Beans, Small Grains)	\$9.00
Treatments	\$5.00
Test Weight	\$4.00
Bacterial Blight Test (Dry Beans)	\$50.00
Anthracnose Test (Dry Beans)	\$40.00
Mosaic Test (Dry Beans)	\$10.00

TAG FEES

	FEE
Certified and Foundation sew-on tags	\$0.10
Certified and Foundation stick-on tags	\$0.12
Quality Assurance sew-on tags	\$0.10
White Analysis sew-on tags	\$0.10
Rush Tag Fee (in addition to tag fee)	\$0.02

CERTIFICATION FIELD INSPECTION FEES

	DEADLINE	FEE
Small Grains (Wheat, Rye, Barley, Oats)	May 15	\$5.00/acre
Corn	June 15	\$12.00/acre
Dry Beans	August 15	\$6.00/acre
Soybeans	August 15	\$5.00/acre

Withdrawn Acres for Certification – 75% of acreage fees refunded.

Late Fee -\$.50 cents/ acre.

Minimum Fees: \$50 per grower field on all crops except corn which has a minimum field fee of \$250 per field.

QUALITY ASSURANCE INSPECTION FEES

	INSPECTION(S)	FEE
Wheat QA Inspection	1 inspection	\$4.50/acre
Wheat Service Inspection	1 inspection	\$3.50/acre
Dry Beans	1 inspection	\$6.00/acre
Corn	4 inspections	\$12.00/acre
Soybeans Inspections		
Fall Leaf Drop	1 inspection	\$3.00/acre
Blossom and Fall	2 inspections	\$4.50/acre

Honorary Membership Award

The Michigan Crop Improvement Association is delighted to announce **William “Bill” Irrer** has been chosen by the Board of Directors to receive the 2024/2025 MCIA Honorary Membership Award. This award is given annually to an individual who has made considerable positive impacts on both the Association and the Certified Seed Industry. This well-deserved recognition is a testament to Bill’s significant contributions to both.

Born in 1963 as the youngest of 11 children, Bill was raised on a 700-acre farm in Westphalia, Michigan by his mother Rita and father, Donald. They kept cattle and hogs, and grew corn, wheat, dry beans and mint. Bill graduated from Pewamo-Westphalia in 1981 and completed his MSU Ag Tech Crop Production Degree in 1983. Bill’s seed career was sparked by a suggestion from Dr. Jim Kells who persuaded Bill to take classes in Seed Technology. That inspiration led Bill to the wonderful world of seed.

Upon graduation from MSU, Bill formed a partnership with his father at which time they began to grow seed. Bills first seed certification occurred in 1984 when he certified 19 acres of Corsoy 79 soybean and 25 acres of Frankenmuth wheat. Bill would go on to purchase the family farm from his father in 1992. Bill and his wife Tina, now own Irrer Farm, which has grown to 8,000 acres and operates in three counties. His dedication and passion for agriculture was recognized in 2011 when the Michigan Farmer Magazine presented him with the “Master Farmer Award”. The “Michigan Master Farmer Award” is given to farmers who demonstrate exceptional farming practices, community leadership, and cooperation with Michigan State University researchers.

Along with their farm, Bill owns and operates Irrer Seed Farm (ISF). He built his first seed plant in 1985, which he outgrew quickly. By the year 2000 ISF was producing over 100,000 units of seed which necessitated a new seed plant. After building his new plant and through continual upgrades of seed cleaning and packaging lines, and along with many experienced seed growers around the state, ISF now produces and processes over 500,000 units of seed annually!

Bill has been a lifelong member of St. Mary’s Catholic Church in Westphalia where he has served on both the Worship Committee and the Finance Council. He also served at St. Gregory the Great Catholic Church Latin Community on the Finance Council. Bill was on the Board of Directors for the Clinton County Farm Bureau, and member of the local Pheasants Forever chapter where he often provided seed for habitat establishment. Bill has also been a longtime member of the Knights of Columbus. In 2011 Bill was elected to the MCIA Board of Directors where he eventually rose to the position of President. During his years on the Board, Bill used his vast experience and leadership to guide MCIA. He was instrumental in updating the MCIA seed plant where he directed MCIA’s installation of a modern color sorter and was a critical proponent of building a new seed warehouse in 2013. Bill said “MCIA has done more for me than any business I have ever dealt with. My nine years on the Board was a pleasure and I was honored to serve as President during that time”.

Bill married Tina in 1984 and together they raised 8 children, Rebecca (Brett) Feldpausch, Austin(Julia) Irrer, Calvin(Bryn) Irrer, Katie(Aaron) Rademacher, Louis(Hannah) Irrer, Thomas(Lauren) Irrer, Kristina Irrer and Sebastin Irrer. They currently have 9 grandchildren. In his spare time, Bill loves spending time with his family at his cottage or on his boat fishing. He also enjoys deer hunting, travelling and classic vehicles.

On behalf of the MCIA Board of Directors, the MCIA Honorary Membership Award is bestowed upon Bill Irrer. A sincere thanks to Bill for all his years of service to the MCIA Board, the Seed Industry, and the Michigan Crop Improvement Association.

Past Honorary Members

Each year the MCIA Board of Directors chooses one or more deserving individuals who have donated their time to improve the Association and the certified seed industry and presents them with the MCIA Honorary Membership Award. Below is a list of past recipients:

1979	Stanley Woods	2000	Charles Rhode
1980	Basil McKenzie	2001	Bill Renn
1981	Dr. Herbert Pettigrove	2002	Dr. Russ Freed
1982	Norman R. Thompson	2003	Dr. James Kelly
1983	Dr. Elmer Rossman	2004	David Woods
1984	Dr. Everett Everson	2005	Clare Harrington
1985	Dr. Milo Tesar	2006	Larry Ivan, Ken Ivan
1986	Dr. Carter Harrison	2007	Steve McGuire
1987	Dr. Wayne Adams	2008	Kent Houghtaling
1988	Dr. Larry Copeland	2009	John Diehl
1989	John Dreves	2010	Dr. Douglas Buhler
1990	Dr. Fred Saettler	2011	George Zmitko
1991	Allan Houghtaling	2012	Robert Clarke
1992	Roy Greenia	2013	Robert Van Kampen
1993	Dr. Robert Gast	2014	James Stein
1994	Richard Long	2015	Mark Wittstock
1994	Charles Leipprandt	2016	Alan Schiellerd
1995	Ken Rauscher	2017	Hauck Seed Farm
1995	Glen Harrington	2018	Dr. James Kells
1996	Chester Metz	2019	Greg Varner
1996	Larry Metz	2020	No Recipient
1997	Don Keinath	2021	Dennis Gibbs, Witt Seed Farm
1997	Wayne Sturm	2022	Randel H. Judd
1998	John Majzel	2023	Paul Varner
1999	Don Reif	2024	William Irrer



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