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MICHIGAN WHEAT PROGRAM

ANNUAL REPORT
2016 -2017



Breaking Through

Discoveries & Developments for Michigan Wheat Farmers through the Michigan Wheat Program.

Our 5th Annual Report highlights the breakthroughs and break-out projects and activities of the Michigan Wheat Program for the 2016-17 fiscal year.



Dear Fellow Michigan Wheat Farmer:

In my sixth year as chairman of the Michigan Wheat Program, I'm pleased to share some of our accomplishments again this year! We've chosen to call our 2016-17 Annual Report **"Breaking Through: Discoveries & Developments for Michigan Wheat Farmers through the Michigan Wheat Program"** to highlight some truly significant advancements in the wheat industry that have arisen through the work of the check-off.

Perhaps the biggest breakthrough has come from our grower-funded research, where MSU researcher Dr. Mariam Sticklen has made an important discovery related to controlling Fusarium head blight. The intellectual property is significant enough that MSU has applied for a patent to cover this Michigan Wheat Program-funded research.

Overall, the Michigan Wheat Program had a good year, with deeper involvement in some strategic consumer messaging activities and continued grower outreach events and communication.

The board has streamlined the program's activities, recognizing the current market realities of our business and that we must all be thrifty and work to stretch our dollars to achieve even more. Still, we are aggressively supporting those activities that will take farmers closer to our mission of a "viable, thriving and growing Michigan wheat industry."

Thanks for your support!

David J. Milligan
Chairman, Michigan Wheat Program

On board for breakthroughs.

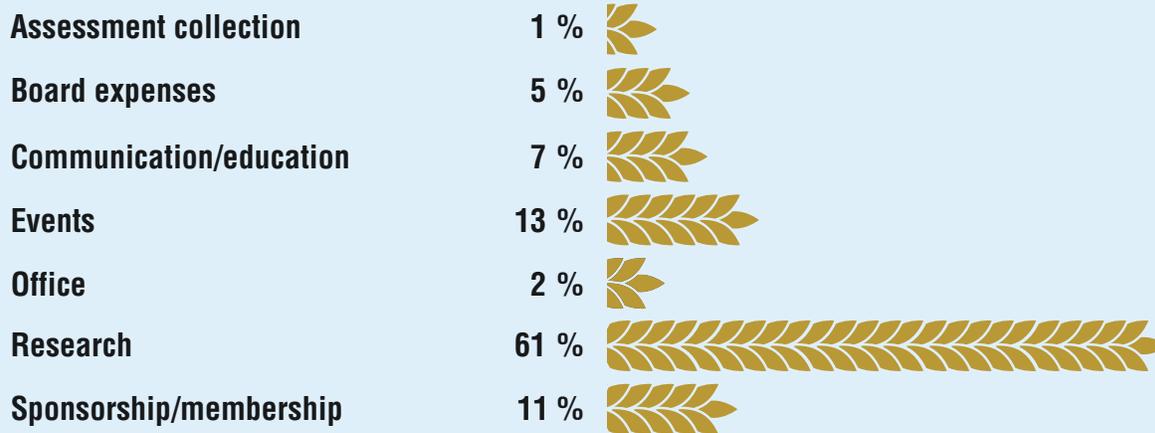
The Michigan Wheat Program board has nine directors who come from production areas across the state. In mid-2016, the Governor appointed a new member from northern Michigan, Brent Wagner. Brent farms cash crops and raises livestock on his family's Centennial Farm in Grawn, and serves on the board of the Traverse City Michigan Farm Bureau.

Wagner's interests pair very well with the other directors on the board, as each has an area of focus such as new farm technology, wheat research, soil health, milling qualities, marketing and value-added, and crop insurance coverage. The varied interests and talents of board members ensure that the Michigan Wheat Program's priorities and objectives represent the entire state. This broad vision and strong team work has moved the program forward very rapidly since it was established by growers in 2011.



Each year the board takes one meeting and makes it a field trip in which they explore more about a specific facet of the wheat industry. This year the board toured King Milling in Lowell. Pictured at King are from left: Treasurer Frank Vyskocil (District 6), Bill Hunt (Dist. 4), Paul Wagner (son of board member Brent Wagner), Brent Wagner (Dist. 8), vice chairman Dean Kantola (Dist. 1), Sally McConnachie (Dist. 5), Chairman Dave Milligan (Dist. 7), Carl Sparks (Dist. 2), Jerry Heck (Dist. 3) and Jim Doyle from King Milling. Not shown: Secretary Art Loeffler (Dist. 9-Milling Representative) and executive director Jody Pollok-Newsom.

Michigan Wheat Program Annual Expenses Percentages for 2016-17 are:



Highlights from the 2016-17 Research Agenda of the Michigan Wheat Program

In fiscal year 2016-17, the Michigan Wheat Program invested over \$555,000 in research projects. Many are multi-year projects that build on past results to further investigate and provide growers' with answers.

Since the program was founded, over \$2 million has been spent on more than 90 research projects to move the wheat industry forward and assist growers with their two biggest needs: Increasing yield and quality.

Shining the research spotlight: Dr. Mariam Sticklen's Fusarium head blight research continues as patent filed

As the Michigan Wheat Program board selects the projects for funding each fiscal year, there is always much discussion about those "pie in the sky" projects that are a long way from fruition, but could make a huge impact on the industry.

One such project initially funded by the board in 2013, was proposed by Dr. Mariam Sticklen in the Department of Plant, Soil and Microbial Sciences at Michigan State University. She proposed to harness new technology to identify the genes responsible for Fusarium head blight (FHB) resistance in wheat.

Growers know that meaningful control of FHB has eluded the world for decades. Although the wheat genome is close to being fully mapped, no one has quite figured out how the genetic code could be harnessed to control FHB – until now.

Sticklen noticed that certain native wheat varieties appeared to be resistant to FHB, and that such resistant genes could confer FHB resistance to other susceptible plants. She had a plan to stop the progression of FHB by identifying those genes.

Sticklen's team utilized innovative biotechnology techniques to identify a pair of key genes in a native grass strain that were able to stop the penetration of the FHB bacteria at its point of infection.

While the discovery was made utilizing biotech methods, the genes will be bred into desirable wheat lines through conventional plant breeding by MSU wheat breeder Dr. Eric Olson. Olson has now taken over as lead on the project.

The partnership approach taken on this project has saved years of breeding research through the identification of the best varieties to get those FHB-resistant traits.

MSU has filed a patent to protect this unique FHB-stopping discovery. The Michigan Wheat Program will be working with MSU going forward on how to best utilize this technology to benefit our growers.



New focus to consumer education

Ag Council – Michigan Grown, Michigan Great – wheat ride along

One of the Michigan consumer outreach highlights for wheat this year was the new campaign Michigan GROWN, Michigan GREAT launched by the Michigan Ag Council, of which the Michigan Wheat Program is a sponsor and active partner.

Michigan wheat was featured twice during the year in their ride along program.

Campaign host Elaine Bristol did a live-broadcast wheat planting ride-along with farmer Mike Milligan in September 2016 and another live-broadcast ride-along at harvest in June. The video reached more than 17,000; was viewed more than 6,300 times and shared nearly 450 times on social media and 575 times on YouTube.

The Michigan Wheat Program also participated in the Michigan State Fair over the busy Labor Day weekend in the Michigan Ag Council booth, sharing the message of Michigan wheat with consumers.



Bristol and Mike Milligan pause for a “selfie” before combining Milligan’s field in the background.

Breakfast on the Farm

The Michigan Wheat Program staff and board members talked to nearly 6,000 visitors at two Breakfast on the Farm events during 2016-2017.

Events provided an opportunity to talk about wheat nutrition, farming, highlight items made from wheat and share recipes with consumers. It’s amazing how many come to the booth unaware that the big tall sheaths on display are wheat stalks that are threshed into the kernels in the bowl.



Executive Director, Jody Pollok-Newsom and her daughter Rachel ready for the Breakfast on the Farm Event to begin.

Marketing breakthroughs

Showing off at the Michigan Restaurant Show

For a third year, the Michigan Wheat Program had a booth at the popular Michigan Restaurant Show at the Suburban Collection Showplace in Novi. Wheat growers and millers had good conversations with chefs, dietitians, food buyers and others about the role of wheat in a healthy diet, the realities of gluten, its importance in the diet and the locally-grown food movement.

A recipe contest for young chefs

The Michigan Wheat Program held its second annual contest for creative new wheat recipes. This year the contest was geared towards culinary students. Innovative recipe entries included zucchini wheat berry waffles, khachapuri, braided Nutella® bread, and granola bars with wheat germ. Three winners received monetary prizes from the Michigan Wheat Program.

Outreach through the National Wheat Foods Council

The Michigan Wheat Program has been a member of the National Wheat Foods Council (NWFC). In 2016-2017, NWFC’s main message was that wheat is a healthy food source. The primary audience is the 284,000 fitness trainers in the US, which a survey identified as a key source from which people get nutrition information. A survey was also done with personal trainers asking what they knew about wheat. It quickly became apparent they were an audience needing wheat information!



Grower Education breakthroughs

MICHIGAN'S TWO BIGGEST WHEAT EVENTS

The Michigan Wheat Program held its annual Summer Field Day in June 2017, and its 5th Annual Grower Winter Meeting in March 2017. Both events were well attended by growers again this year.



Highlights of the 2017 Annual Winter Grower Meeting

Keynote speakers for the 2017 winter meeting were Mike Mock, Mock Consulting of Ohio, a specialist in grain marketing and risk management planning; and Steven Peterson, a Minneapolis farmer and former General Mills grain executive, who is now a consulting expert on agricultural sustainability.

Another high point was the grower panel featuring Michigan winners in the National Wheat Yield Contest: Gordon Briggs of Scottville and David Eickholt of Chesaning. MSU wheat breeder, Dr. Eric Olson talked about maximizing profitability by optimal wheat genetic selections, and Dr. Marty Chilvers and Martin Nagelkirk provided an update on disease control.



2017 Summer Field Day Highlights

The Summer Field Day followed its traditional wagon tour format with stops at the field test sites of MSU wheat researchers who receive funding from the Michigan Wheat Program. Nearly 200 growers attended the event, held at the MSU Pathology Farm near campus. Field presentations included:

- Wheat diseases;
- Breeding high-performance wheat;
- Weed control;
- Macro- and micro-nutrients; and
- Wheat establishment.

Other presentations included a market outlook, an update on national wheat activities and a preview of the 2017 harvest. Again this year, Jan Byrne from the diagnostics lab was on hand to look at stressed wheat in order to identify disease, pest and nutrient issues.

Note: Videos, handouts and PowerPoint decks from the 2017 Annual Winter Grower Meeting and the 2017 Summer Field Day, as well as other past events are posted at www.miwheat.org under the Education and Previous Events tabs.

Expanding influence through the National Association of Wheat Growers (NAWG)

Since joining NAWG in 2013, Michigan has gained influence and a stronger presence in the national wheat organization.

Michigan Wheat Program chairman David Milligan, of Cass City, has chaired NAWG's Research & Technology Committee. The committee is responsible for assessing research needs, providing direction for public and private researchers, and working to ensure public wheat research programs are adequately funded. More than three-quarters of US wheat varieties are developed by public research programs, making research and innovation a top priority for NAWG.

In the winter of 2017, Milligan was elected Secretary of the NAWG Board, and is now part of the Executive Committee. He will rotate through the officer chain and ultimately serve as President of the board. For a young organization such as the Michigan Wheat Program, this is great visibility and a wonderful opportunity to get our issues included in the national agenda.



Executive Committee of the National Association of Wheat Growers from left, Michigan Wheat Program chairman David Milligan, NAWG Secretary; Jimmy Musick, Vice President; David Schemm, President; Gordon Stoner, Past President; and Ben Scholz, Treasurer.

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For more information on our programs and research results as they become available throughout the year visit us at www.miwheat.org. For monthly updates, sign up for our e-newsletter through our website.