



WHEAT  
MARKETING  
• C E N T E R •

# 2016 ANNUAL REPORT





# Mission



Wheat Marketing Center (WMC) is dedicated to improving the well being of present and future generations of U.S. wheat farmers and worldwide consumers by conducting wheat utilization research projects and delivering dynamic educational programs in partnership with other international technical and educational organizations.



Cookie and Cracker Technology Course evaluating end products.



Korea Contracting for Wheat Value workshop participants comparing pan bread.

## TABLE OF CONTENTS



L to R: Kin Wong, Gamble Wright, Dr. Gary Hou, Caryn Ong, Kathleen Gehring, Bon Lee, Janice Cooper

- Chairman’s Message / Board of Directors ..... 3**
- Managing Director’s Letter / Staff ..... 4**
- WMC By the Numbers..... 5**
- Courses & Workshops ..... 6**
- Crop Quality..... 7**
- Research ..... 7**
- Financial Report ..... 8**
- Visiting Scholars ..... 9**
- WMC in the Media ..... 9**
- WMC Lab Services..... 10**
- Special Events ..... 11**
- 2017 Highlights ..... Back cover**



## CHAIRMAN'S MESSAGE

# Leadership

Wheat Marketing Center is governed by a 13 member board made up of wheat commission members from the seven charter states along with six industry representatives. Let me take a moment and introduce the group that meets twice a year, sets policy, and makes up the four working committees, all dedicated to US wheat growers and their customers around the world.

Grower state board members are David Clough, North Dakota; Darren Padget, Oregon; Brit Ausman, Washington; Steve Beedy, Colorado; Von Johnson, Nebraska; Bruce Myllymaki, Montana; and myself, Idaho. The industry representative component of the board includes Tom Zelenka, Schnitzer Steel (ret); Ron Williams, Columbia Grain; Chris Labbe, Kerr Pacific; John Akre, Port of Portland; Greg Guthrie, Burlington Northern Santa Fe; and Keith Bailey, Ag Ventures NW.

At the helm daily is Managing Director Janice Cooper. She is in her second year at WMC and has been in the wheat industry for many years, most recently as Executive Director of the California Wheat Commission. Janice currently is chairperson of USDA's Federal Grain Inspection Service industry advisory committee.

Our Technical Director is Dr. Gary Hou. Gary is a published scientist known and recognized worldwide for his Asian noodle, cracker and other wheat foods expertise. He has served the WMC for over 21 years!

Lab Supervisor Bon Lee is an internationally recognized milling expert who, like Gary, consults with customers from around the world to assure U.S. wheat products and blends are meeting customers' needs. He is also in charge of the annual crop quality testing process.

Kathleen Gehring is our Lab Technician who is always attending to detailed processes and equipment -- all with great efficiency and a smile. Like Bon and Gary, her long term commitment to U.S. growers is commendable!

The newest addition to the staff is Gamble Wright. She is the receptionist and office manager we all greatly appreciate!

Food Technologist Caryn Ong and Lab Assistant Kin Wong round out the very capable team that works tirelessly to assure that WMC is "improving the competitive edge of United States wheat farmers through education and research" every day.

The international Visiting Scholar program provides WMC with industry expertise and university scholars from around the world on a six to twelve month rotating basis. While with us in Portland, they conduct a baking or milling research project while lending their international expertise to U.S. growers.

Working for you every day, we are the industry's Wheat Marketing Center, dedicated to US wheat farmers. I am honored to serve at the pleasure of the board.

**Bill Flory, Chairperson**  
Idaho Wheat Commission

**David Clough, Vice Chairperson**  
North Dakota Wheat Commission

**Darren Padget, Secretary**  
Oregon Wheat Commission

**John Akre, Treasurer**  
Port of Portland

**Brit Ausman**  
Washington Grain Commission

**Keith Bailey**  
AgVentures NW, LLC

**Steve Beedy**  
Colorado Wheat Administrative Committee

**Gregory L. Guthrie**  
Burlington Northern Santa Fe

**Von Johnson**  
Nebraska Wheat Board

**Chris Labbe**  
Kerr Pacific Corp.

**Bruce Myllymaki**  
Montana Wheat and Barley Committee

**Ron Williams**  
Columbia Grain Inc.

**Tom Zelenka**

**Ex-officio Members**

**Dan Arp**  
Oregon State University

**Warren Banks**  
Portland Community College

**Alexis Taylor**  
Oregon Department of Agriculture

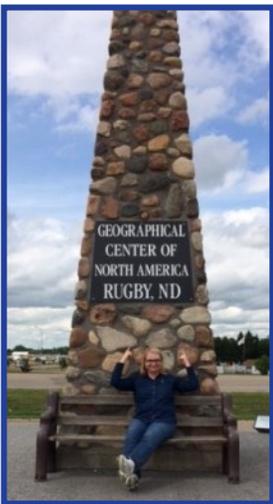


# MANAGING DIRECTOR'S LETTER



Greetings from Portland! I have been on the job for just over a year now and am honored to take this opportunity to reach out to our stakeholders, collaborators, and friends in the wheat industry to provide a report on the highlights from the Wheat Marketing Center. As we close out the year, WMC staff are all busy with year-end projects and travel, grower workshops, pilot cracker line product testing, and planning for 2017. In fact, as I reflect on the year, I can't really think of a slow period. As you will see in this report, we have hosted many visitors from near and far; conducted numerous technical courses showcasing the quality of U.S. wheat in a range of end products; and completed the annual crop quality testing and several in-depth research projects.

2016 has also been a busy year for the Board of Directors, chaired by Bill Flory, a wheat grower representing the Idaho Wheat Commission. All board members serve on committees engaged on financial, personnel, marketing, and governance issues. These committees provided leadership throughout the year beyond the biannual board meetings. In 2016, the committees oversaw the redrafting of the Employee Handbook, restructuring of the budget, and planning for new marketing tools. We have a diverse board – seven representatives from the charter state wheat commissions (Idaho, Oregon, Washington, North Dakota, Montana, Colorado, and Nebraska) and six members from entities related to the global wheat industry. The knowledge and expertise of the members, many with long service on our board, bring valuable insights to discussions of strategy and business development.

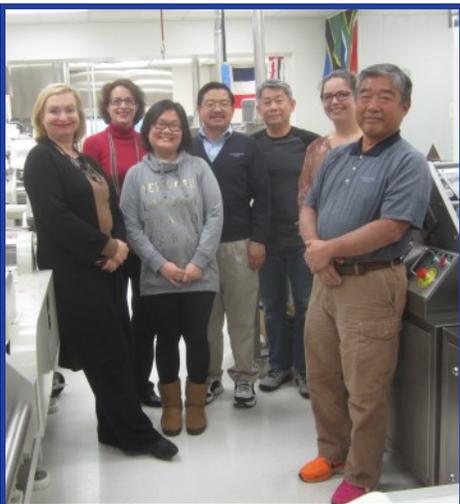


WMC Lab Services, the for-profit entity set up to handle proprietary training, wheat and flour testing, and product development, also had a good year. Governed by a separate Board of Directors, WMC Lab Services continues to add customers and promote U.S. wheat through its specialized services.

Our full-time staff remains committed to the WMC's mission of improving the competitive edge of U.S. wheat through education and research. Existing staff – Gary Hou, Bon Lee, Kathleen Gehring and Caryn Ong – were joined early this year by Gamble Wright, a native of Jacksonville, FL, as Office Manager. Two visiting scholars, a research associate, and a part-time milling associate rounded out the staff.

I want to express my personal thanks to the extended WMC family for welcoming me and making this year so memorable. My first year was focused on internal operations and on outreach to our partners. I visited all seven charter states to report on WMC's progress, attended U.S. Wheat Associates (USW) meetings and regional marketing conferences, and participated in wheat quality and other industry meetings. All wheat organizations share the common goal to promote U.S. wheat. By working together we are better positioned to meet the many challenges in the current world market.

## STAFF



Janice Cooper	Managing Director	cooper@wmcinc.org
Kathleen Gehring	Laboratory Technologist	kgehring@wmcinc.org
Gary Hou, Ph.D.	Technical Director	ghou@wmcinc.org
Bon Lee	Laboratory Supervisor	blee@wmcinc.org
Yee-Ling Caryn Ong	Food Technologist	caryn.ong@wmcinc.org
Gamble Wright	Office Manager	info@wmcinc.org



1200 NW Naito Parkway, Suite 230, Portland, OR 97209-2800 | 503.295.0823

**300**  
tour  
guests



**17**  
*courses*



**153**  
course  
participants



**10,127**  
*lab tests*



**61**  
*grower*  
workshop  
participants

**24**



**24**  
countries  
engaged



# COURSES & WORKSHOPS

WMC hosts multiple technical training courses and growers' workshops each year. For a current list, please see the back cover or visit our website, [wmcinc.org](http://wmcinc.org).



*Participants of the Korea Whole Wheat Noodle Development Course with Shawn Campbell of USW and WMC Board member John Akre.*



*Nigerian team, above, developing product with our partners at the Food Innovation Center (FIC), and below, assessing their new products, during the Advanced Asian Noodle Technology Short Course.*



*Lin Carson, PhD, CEO and Founder of BAKERpedia, presenting course materials at a new "Science of" series.*



## Education

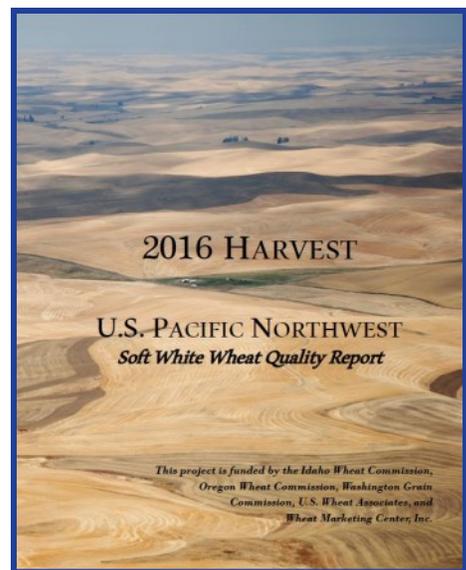


*Janice Cooper, far right, touring Dave's Killer Bread with Montana farmers during a growers workshop.*



U.S. wheat competes in the world market based on its high quality and reliable supply. Each year, Wheat Marketing Center joins other quality laboratories from around the country in testing and documenting the quality characteristics of the current crop. In cooperation with elevators and grain facilities in Idaho, Oregon and Washington, harvest samples of PNW wheat are collected and sent to WMC where tests are performed and results reported weekly throughout the harvest season. In addition to this weekly testing, WMC produces an in-depth Crop Quality Report on soft white wheat (funded by the PNW wheat commissions) and provides data on soft white and hard white wheat for the comprehensive USW Crop Quality Report.

In addition to testing the current crop, WMC also participates in the ongoing effort to improve the quality of U.S. wheat by evaluating new varieties being considered for commercial release. Each year, public and private breeders submit their most promising lines for review by quality and commercial labs. WMC tests grain, flour and end product quality and presents results at each of the regional review meetings.



## RESEARCH HIGHLIGHTS



*Visiting Scholar Wenyin 'Sofia' Zheng with results from the SW whole wheat project.*



*Visiting Scholar Yosep 'Joe' Kim testing sponge cakes.*

WMC's research projects have focused on the end use quality of U.S. wheat, improvement of whole-wheat flour products, and enhancement of nutritional benefits in wheat foods. Often, research topics are chosen in response to harvest challenges and/or market opportunities. Subjects this year include:

- ◆ Optimization of western white flour blends for Japanese sponge cake
- ◆ Soft wheat whole-wheat flour particle size and snack cracker baking performance
- ◆ Utilization of soft white whole-wheat flour in baking and steamed bread applications
- ◆ Improvement of textural and sensory properties of whole-wheat noodle with selected enzymes and emulsifiers
- ◆ Hard wheat whole-wheat flour particle and tortilla baking quality
- ◆ Improvement of whole-wheat tortillas with sprouted whole-wheat flour substitution
- ◆ Development of a special leavening system to improve the opacity in whole-wheat tortillas
- ◆ Shelf-life extension of pan bread using wine grape pomace

For research results or to discuss new research projects, please contact Dr. Gary Hou, WMC Technical Director, at [g Hou@wmcinc.org](mailto:g Hou@wmcinc.org).



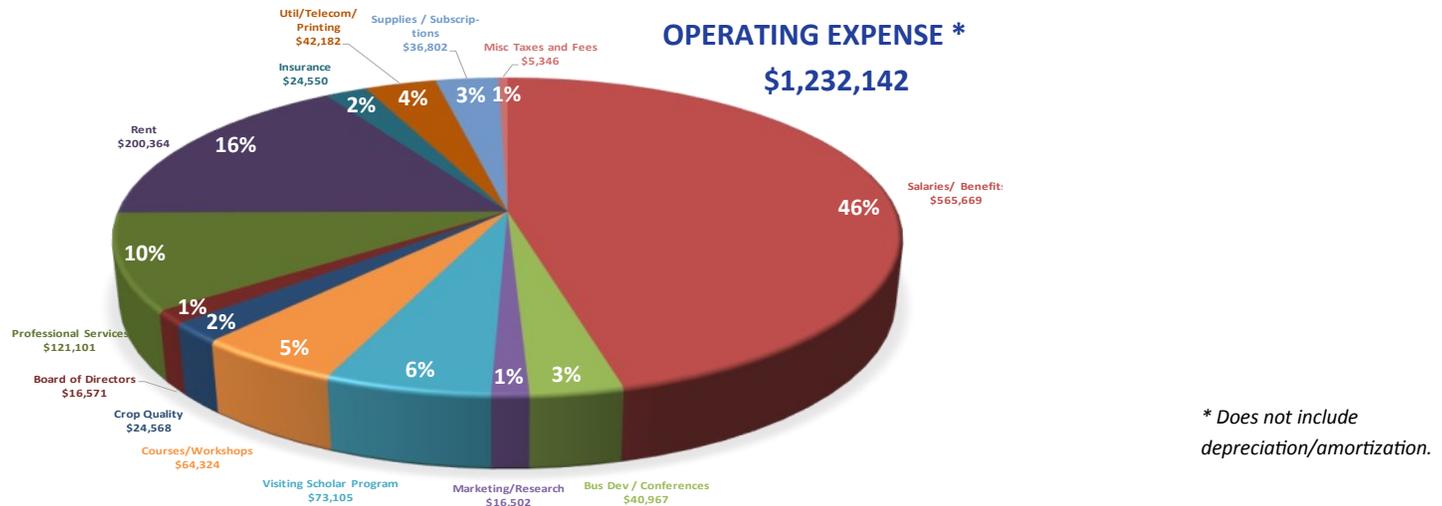
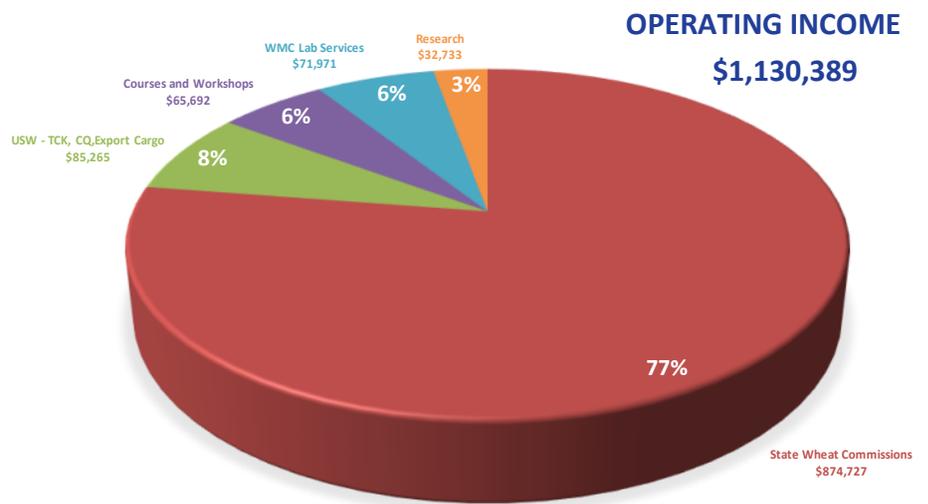
# FINANCIAL REPORT – FISCAL YEAR 2015/16

The numbers reported here are for WMC’s FY 15/16, which ran from July 1, 2015 to June 30, 2016. Starting in December 2016, the financial accounting system was reorganized to improve transparency and project accounting.

**Operating Budget:** Wheat Marketing Center received 77 percent of its operating income from state wheat commissions. The seven WMC charter states – Oregon, Washington, Idaho, Montana, North Dakota, Nebraska, and Colorado – funded several programs including: general support, crop quality, grower workshops, research, Visiting Scholars, and equipment. South Dakota and Wyoming also provided some funding. WMC appreciates this strong support and looks forward to continued and expanded engagement with wheat growers across the country.

Approximately 45% of operating expense funds salaries and benefits for WMC’s highly trained and experienced staff. Other major expense items include rent, business development, Visiting Scholars, utilities and telecom, and insurance.

The annual fiscal audit resulted in a clean report and noted that issues from the prior year had been addressed.



\* Does not include depreciation/amortization.

**Capital Budget:** Starting with FY 16/17, a formal separation was made between the operating and capital budgets, as directed by the Board. Although capital income derived from WMC’s partnership in the Albers Mill Building is still available to fund operations as needed, this delineation clarifies for our major funders that state commission dollars are not being used for building-related expenses.

WMC derived \$420,000 in building income, half of which was invested back into the building partnership for tenant upgrades and other capital projects. Close to \$100,000 was spent on WMC equipment purchase, repair and maintenance.

# VISITING SCHOLARS



In 2001, WMC initiated a scientific technical program for Visiting Scholars in order to perform research on selected topics. Scholars have come from many key markets, including Japan, Taiwan, Mexico, China, and Korea. Since the program's inception, WMC has hosted 25 visiting scholars from nine countries.

WMC's Visiting Scholar program invites wheat-focused science professionals to spend 6-12 months to gain technical training and develop increased awareness, understanding and innovation to increase utilization of U.S. wheat. Such exchanges not only strengthen relationships and create networks with current and emerging technical leaders but also provide insight to build foundations for better recognition of the comparative advantages of using U.S. wheat in existing and new product markets.

Program Accomplishments—Wheat Marketing Center hosted two scholars in 2016:



Visiting Scholars at a SWW Oregon farm.

Dr. Wenyin (Sofia) Zheng, Associate Professor, Anhui Agricultural University, Hefei, China; January - December, 2016. Her projects included evaluating soft white whole wheat flour in baked products and wine grape pomace-fortified bread.

Mr. Yosep (Joe) Kim, Researcher, Daehan Flour Mill, Incheon, South Korea; February – August, 2016. Mr. Kim studied the relationship between protein levels and sponge cake quality and identified optimal blends for sponge cakes.



Wenyin 'Sofia' Zheng

# WMC IN THE MEDIA

**Wheat Marketing Center**

From left: Bon Lee, Yosep Kim (Visiting Scholar from Korea) and Gary Hou with their 100 sponge cakes being tested as part of a research project funded by PHW wheat commissions.

**WMC Misson and Staff**

- The Wheat Marketing Center, located in the old Albers Mill building in Portland, OR, provides technical training, education and research for U.S. wheat farmers and customers, both domestic and international.
- Created in 1988 with the support of seven wheat states including Idaho, Washington, Oregon, Montana, North Dakota, Nebraska, and Colorado, WMC serves as an information bridge between growers and end users of wheat. WMC's mission is to improve the well-being of present and future generations of U.S. wheat farmers and worldwide consumers by conducting wheat utilization research projects and delivering dynamic educational programs in partnership with other international technical and educational organizations.
- WMC's full-time staff includes:
  - Managing Director Janice Cooper - New to WMC, Ms. Cooper brings wheat industry, international trade and diverse business experience to her role of managing the Center and its relationships with supporting states, US Wheat Associates (USW), and the many stakeholders.
  - Technical Director Gary Hou - With more than 20 years at WMC, Dr. Hou is a recognized expert in wheat foods product quality, including Asian noodles, cookies and crackers, sponge cakes, flat bread, and whole grain products. He leads the Center's technical training and research activities.
  - Lab Supervisor Bon Lee - With more than 18 years at WMC, Mr. Lee manages the annual crop quality testing effort, including the weekly harvest and annual CQ reports. He also is responsible for lab testing services provided to private companies.
- Lab Technologist Kathleen Gehring - Ms. Gehring has been with WMC for close to eight years, performing hundreds of quality tests and explaining their value to the many visitors that come through the facility each year.
- Food Technologist Caryn Ong - On staff since 2014, Ms. Ong assists Dr. Hou with all technical training courses and works on various research projects. She can often be found measuring sponge cake texture or preparing dough for the cookie/cracker pilot line.
- Office Manager Gamble Wright - The newest addition to the staff, Ms. Wright joined WMC in March and is quickly bringing order to all corners of the operation. She provides a friendly greeting to visitors and organizes WMC activities.

From right: Gary Hou, Caryn Ong and Jungang Wang demonstrate the cookie/cracker pilot scale test for customers and guests from the Latin American and Caribbean Buyers Conference tour.

FALL 2016 • IDEAS GRAIN • 27

**US WHEAT ASSOCIATES**  
3103 10th Street, North • Suite 300 • Arlington, VA 22201  
Tel: (202) 663-6006 • Fax: (703) 524-4399  
Wheat Letter

October 20, 2016

U.S. Wheat Associates (USWA) is the industry's market development organization working in more than 100 countries. Its mission is to "develop, maintain and expand international markets to enhance the profitability of U.S. wheat producers and their customers." USWA activities are funded by production dollars managed by 18 state wheat commissions and USDA Foreign Agricultural Service cost-share programs. For more information, visit [www.uswainfo.org](http://www.uswainfo.org) or contact your state wheat commission. Stakeholders may request original articles from Wheat Letter with source attribution. Click to subscribe or unsubscribe to Wheat Letter.

**4 Overseas Buyers Have a Voice in the U.S. Wheat Supply Chain**

The U.S. wheat industry takes pride in its products and position as the world's most very important that both our domestic and export customers can depend on the age-old grain, the quality of U.S. wheat and our reputation reliability as a supplier. One of the unique inspection and certification available to importers from the [USDA Grain Inspection, Standards and Packers \(GIPSA\)](http://www.uswainfo.org), an agency that is part of the USDA, Grain Inspection, Standards and Packers (GIPSA). Forty years ago this year, an act of Congress established GIPSA and required state agency grain inspectors for export. Read more here: <http://www.uswainfo.org>

"No other wheat exporter comes close in terms of the neutral, detailed, federally supervised (USDA) inspection and certification that is available to the U.S. commercial marketplace." (1976) (Suzanne Technical Director, Peter Upton, former USW vice president, the buyer gets."

Even more reassuring is the fact that organizations focused on helping overseas wheat buyers get the most value from U.S. wheat are actively involved in advising the federal agencies responsible for grain inspection. To help GIPSA and FOSIS better meet the needs of customers who operate in a dynamic and changing marketplace, representatives from all segments of the U.S. grain industry are appointed by the U.S. Department of Agriculture to serve on a Grain Inspection Advisory Committee.

...and West Coast Office Director Steve Wroching has served on the Advisory Committee for many years and for the past year has been managing the contract inspection and certification of the California...

**REPORTS**  
WASHINGTON GRAIN COMMISSION

**One year later...**

JANICE COOPER PUTS HER IMPRINT ON WHEAT MARKETING CENTER

By Scott A. Yates

There's an impression about how it's not where you start that matters, it's where you end up. In that case, the best that Janice Cooper is a fifth-generation Californian shouldn't be held against her. She is, after all, completing her career in the Northwest, serving as the managing director of the Portland-based Wheat Marketing Center (WMC).

Cooper is a good sport about the change in her career path.

**Grain Origination by U.S. and International Customers: International Quality Needs and Specifications for Wheat**

...to meet the needs of international customers...  
...the industry has taken several key steps...

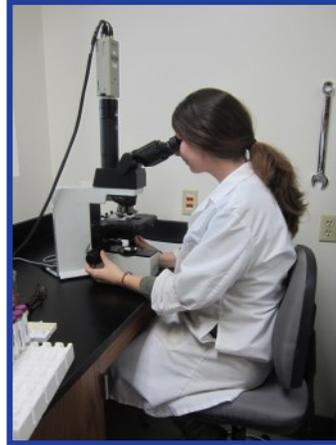
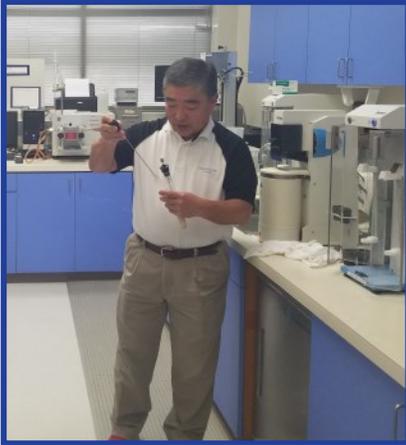
**YouTube**

**RUSSELL NEMETZ**  
NORTHERN AG NETWORK

ALBERS MILL



# WMC LAB SERVICES, INC.



## WMC LAB SERVICES

**Tom Zelenka, Chairperson**

**Dave Stone, Secretary**  
Food Innovation Center  
(Oregon State University)

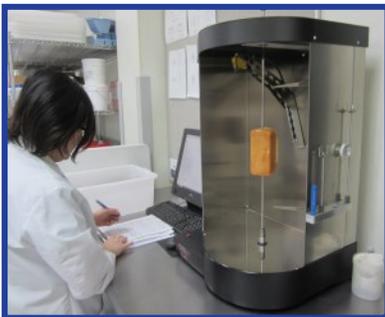
**Brian O'Toole**  
North Dakota Wheat Commission

**Steve Wirsching**  
US Wheat Associates

**Ex-officio Members**

**Bill Flory**  
Idaho Wheat Commission

**Mark Hodges**  
Plains Grains, Inc.



Most of the activity at the Wheat Marketing Center falls within our non-profit educational and research mission. In response to requests from customers for confidential services, however, WMC Lab Services, a for-profit entity, was established to conduct proprietary research, lab analysis and training. WMC Lab Services provides a range of services including quality testing; cracker/biscuit, Asian noodle, tortilla, and other product development on our pilot scale production lines; and customized training for technical staff. Under a lease agreement, WMC Lab

Services reimburses Wheat Marketing Center for facility and staff use. WMC Lab Services is governed by a separate board of directors.

## PILOT SCALE PRODUCTION LINES



With generous funding from several state wheat commissions, Wheat Marketing Center acquired three major pilot scale production lines that enhance our research, product development and technical training capability. The Asian Noodle Line (pictured on left) is a complete line including vacuum mixer, dough sheeters, a series of rollers, slitter, steamer, fryer, and dryer. It mimics the commercial noodle production and is very suitable for technical training and research and product development purposes. The Cracker/Biscuit Line (center), one of only two in the world, can be adapted to many types of products, including saltine cracker, snack crackers, Marie-style semi-sweet biscuits, and various types of rotary cookies. Our most recent acquisition, the Tortilla Line (right), enables WMC to build on its extensive research on improving whole wheat tortilla quality.



## LATIN AMERICAN AND CARIBBEAN BUYERS CONFERENCE



In June 2016, US Wheat Associates held its biennial Latin American and Caribbean Buyers Conference in Portland, drawing a record number of participants including 75 flour millers and other buyers from this key region. The conference focused on how current world market dynamics make U.S. wheat an attractive choice for importers. That is an important message for Latin American buyers who import 40 percent of all U.S. wheat exports.

WMC staff and board of directors welcomed more than 50 guests for a pre-conference facility tour, demonstrating both cracker/biscuit and Asian noodle pilot scale lines. During the conference, several customers asked for additional meetings with WMC staff to discuss technical issues and potential research projects.



## GRAIN INSPECTION ADVISORY COMMITTEE

The 15 member Grain Inspection Advisory Committee (GIAC), appointed by the U.S. Secretary of Agriculture to advise the Grain Inspection, Packers and Stockyards Administration (GIPSA) on programs and services, met at the Wheat Marketing Center in October 2016. GIAC is comprised of grain industry representatives from all segments of the industry.

Larry Mitchell, GIPSA Administrator, opened the meeting and welcomed the more than 50 participants. Senior FGIS staff from Washington, DC and the National Grain Center in Kansas City provided a series of detailed presentations updating the committee on field operations, fiscal issues, international activities, and technical scientific projects.

The following day, the committee discussed and adopted nine resolutions on a number of pending issues. The committee strongly urged the Federal Grain Inspection Service to improve testing equipment “equivalence,” reduce variances in results and continue its monitoring programs. Resolutions provide guidance and recommendations regarding programs and policies.

After completing the resolution process, the committee and FGIS staff toured the WMC and Columbia Export Terminal. They then joined WMC’s Board of Directors for a vigorous discussion on many issues, including how to improve the Falling Number testing protocols. USW Vice President Steve Wirsching completed his term as committee chair and passed the gavel to WMC Managing Director Janice Cooper.



*GIAC members in Portland.*



*GIAC and FGIS staff tour WMC.*



## 2017 HIGHLIGHTS

Wheat Marketing Center has an exciting year planned for 2017. In addition to our full complement of USW and WMC sponsored technical training courses and grower workshops, we are also planning an export workshop for elevator operators, hosting a Bread Bakers Guild class, and participating in the USW World Staff Conference. We are also expanding course offerings featuring new technologies and techniques through our partnership with BAKERpedia.

We have launched a rebranding effort that has brought in our new logo. Next we will update our website and refresh the educational displays that have formed a core component of our outreach mission. The Board's Marketing and Promotion Committee is fully engaged in this effort and is attracting many partner resources to the project.

We are looking forward to utilizing the tortilla line donated by the Nebraska Wheat Board for training and research purposes. We will also be adding a stone mill, courtesy of Montana Wheat and Barley Committee, which will enhance our already robust research program to improve the quality of whole grain products.

For more details, call our office, follow us on social media, or join us at the Spring Board of Directors meeting on March 23-24, 2017.

### Grower Workshops

**Jan. 9** Idaho Farmers

*Sponsored by  
Idaho Wheat Commission*

**Jan. 9-13** Nebraska Farmers

*Sponsored by Nebraska Wheat Board*

**Feb. 27-28** Oregon Farmers

*Sponsored by  
Oregon Wheat Commission*

**Mar. 7-10** Montana Farmers

*Sponsored by  
Montana Wheat & Barley Committee*

**Mar. 20-22** Nebraska Youth

*Sponsored by Nebraska Wheat Board*

**Nov. 29** Washington Growers

*Sponsored by  
Washington Grain Commission*

### WMC Courses

**Feb. 8-9** Science of Artisan Bread Baking

*Organized by WMC and BAKERpedia*

**Mar. 14-15** World of Rye Breads

*Sponsored by BBGA*

**Apr. 17-21** Cookie and Cracker Technology  
Short Course

**May 9-11** Flat Bread and Flour Tortilla  
Technology Short Course

**June 6-8** Asian Noodle Technology and  
Ingredient Application Short  
Course

*More courses to be added.*

### USW Courses

**Mar. 20-24** Korea Whole Wheat  
Noodle Development  
*USW/Seoul Office*

**June 19-23** China Contracting for  
Wheat Value Workshop  
*USW/China Office*

**July 10-14** Korea Whole Wheat  
Baking Study Team  
*USW/Seoul Office*

**July 31-Aug. 11** Asian Noodle Technology  
Courses for Nigeria  
*USW/Cape Town and Lagos Offices*

**Aug. 21-25** Korea Contracting for  
Wheat Value Workshop  
*USW/Seoul Office*

1200 NW Naito Parkway, Suite 230 | Portland, OR 97209-2800 | 503.295.0823 | [info@wmcinc.org](mailto:info@wmcinc.org)



[wmcinc.org](http://wmcinc.org)



Wheat Marketing Center



[@wmcinc](https://twitter.com/wmcinc)