

Wheat Marketing Center



From left, Bon Lee, Yosep Kim (Visiting Scholar from Korea) and Gary Hou with over 100 sponge cakes being tested as part of a research project funded by PNW 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 cake, 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 line for customers and guests from the Latin American and Caribbean Buyers' Conference tour.

Visiting Scholar Program

Supplementing this staff are our Visiting Scholars, Research Assistants and on-call staff to assist with milling. The Visiting Scholar Program allows WMC to tap skilled researchers from key markets and engage them in specific projects designed to address market challenges and expand market opportunities. These scholars come from universities and customer companies (including mills) and expand WMC's research capability. Some examples of recent projects include:

- Dr. Wenyn (Sofia) Zheng is an associate professor of Anhui Agricultural University, who focuses on wheat quality and utilization. Her WMC project tested soft white whole-wheat flour in pan bread, steamed bread and flour tortillas.
- Mr. Yosep Kim, a researcher from Daehan Flour Mills, evaluated the impact of various protein levels soft white wheat on sponge cake quality. This project was funded by the PNW wheat commissions in response to the cyclical high protein years. The study found that 85% to 75% SWH (10.5% wheat protein) combined with 15% to 25% WHCB was the optimum blend. This creates flexibility for customers who may have thought flour made from SWH 8.5% protein was required.



L-R: Yosep "Jo" Kim • Visiting Scholar; Gamble Wright • Office Manager; Stu Conser • Lab Technician; Caryn Ong • Food Technologist; Kathleen Gehring • Lab Technologist; Bon Lee • Lab Supervisor; Wenyn "Sofia" Zheng • Visiting Scholar; Janice Cooper • Managing Director; Dr. Gary Hou • Technical Director; Jungang "Jason" Wang • Research Assistant.

University of Idaho researcher Dr. Amy Lin and WMC's Dr. Hou are collaborating on a study that examines the impact of low temperatures on starch granule formation. Combining Dr. Lin's starch chemistry expertise with Dr. Hou's knowledge of end product quality will provide added value to Idaho's wheat industry.

In addition to conducting in-depth research, the scholars backstop WMC staff for tours and crop quality testing. Once they return to their home country, the scholars share their expanded knowledge of U.S. wheat quality with their colleagues in their local wheat industry and often act as advocates for expanded use of U.S. wheat. Dr. Ting Liu, a recent scholar, has just been hired by USW-China as a technical specialist.

The Idaho Connection

The Idaho Wheat Commission (IWC) is a founding supporter and active participant in shaping WMC's programs. Idaho Wheat Commissioner Bill Flory from Winchester chairs WMC's Board of Directors. "Wheat Marketing Center is a powerful resource for the U.S. wheat farmer," said Flory. "Our strength in the world market is quality and WMC demonstrates to customers how they can utilize that quality to its full potential in their end products."

Each year, WMC proposes projects and activities that directly support the interests of Idaho wheat farmers. For

FY 2016/17, the IWC approved funding for:

- Crop Quality Sample Collection and Testing
- PNW Soft White Wheat Crop Quality Report
- Visiting Scholar Program
- Special research project that will study whether substituting SWH bran in whole wheat noodles improves product color and texture compared with using hard red bran. If successful, this would help maintain or even increase the market share of SWH in Asia by increasing its economic value.
- General support that includes technical training for customers and the annual grower tour

Idaho joins other state wheat commissions in supplying approximately 75 percent of WMC's operating budget. Additional income is derived from technical course income, lab services and special research projects.

Coordination and collaboration also take place in research projects. On the important subject of the causes and impact of low falling numbers, for example, University of Idaho researcher Dr. Amy Lin and WMC's Dr. Hou are collaborating on a study that examines the impact of low temperatures on starch granule formation. Combining Dr. Lin's starch chemistry expertise with Dr. Hou's knowledge of end product quality will provide added value to Idaho's wheat industry.

Core Programs

WMC's core strengths are its experienced staff and the unique and specialized equipment enabling product development and wheat/flour quality evaluation. With



funding from IWC and other state wheat commissions, for example, WMC acquired a pilot scale cookie/cracker/biscuit line that allows customers to test different combinations of wheat and other ingredients in their formulations. Major cookie and cracker manufacturing companies have come to work on the line and have seen first-hand that U.S. wheat offers the quality they are looking for in their end products. WMC partners with US Wheat Associates (USW) to bring customer teams comprised of product manufacturers and millers to experiment on new products and compare their control flour to various blends of U.S. wheat. For both cookies/crackers and Asian noodles, this approach has worked very effectively by allowing the customers to engage in hands-on product formulation and evaluation.

The other focus of educational outreach efforts is farmers. Each January, IWC organizes a trip to Portland for wheat growers to learn about the international market and the importance of quality to end products. The group makes several stops around Portland including export elevators, barge operators, and the Wheat Marketing Center to get a complete view of what happens to their wheat when it leaves their farms. WMC staff always enjoys their interactions with farmers and the opportunity to learn more about their challenges and concerns. In 2016, about 20 people participated in the tour. Later in the year, WMC often hosts an Idaho FFA group and provided a similar experience.

In June, 2016, USW held its biennial Latin American Buyers Conference in Portland. This provided a special opportunity to interact with customers from throughout the region and farmers from around the country. WMC offered a special tour before the conference and attracted more than 60 attendees. Chairman Flory and several of his fellow board members, including Darren Padgett from Oregon, Brit Ausman from Washington, John Akre from the Port of Portland, and Greg Guthrie

from BNSF, helped host the tour. Demonstrating the cookie/cracker, Asian noodle and tortilla lines spurred many interesting conversations. Several major wheat buyers were particularly interested in learning that they could arrange for additional quality tests as their wheat was being loaded onto ships. These results help them know how to best utilize the wheat upon arrival. USW produced a video of the tour, which can be viewed on YouTube.



Gary Hou and cracker consultant Dr. Meera Kweon (left) leading cracker evaluation with international participants at the Cookie and Cracker Technology Short Course.

Conclusion

In late summer and early fall, WMC turns its focus to analyzing the new crop and producing weekly harvest reports. The data is compiled and included in the USW annual crop quality report (covering all wheat classes) and the special SWH report, which are shared with customers around the world. As growers know all too well, each harvest presents new challenges; WMC stands ready to help Idaho wheat farmers address those challenges and to show customers how to make quality end products with the wheat Idaho grows. 🇺🇸