Q & A with Mark Weber

New Director of Northern Crops Institute discusses achievements and goals.

In late August, Mark Weber was named director of the Northern Crops Insitute (NCI), Fargo, ND, a collaborative effort among North Dakota, Minnesota, Montana, and South Dakota to support the promotion and market development of crops grown in this four-state region. Now with several months under his belt as NCI's director, Milling Journal *contacted Weber (701-231-7736) in mid-October to ask a few questions concerning NCI's efforts. The following are Weber's responses.*

Q. What are some of the most current and key programs and initiatives being implemented or planned by the NCI?

A. NCI specializes in programs that focus on baking, pasta processing, extrusion technology, milling technology, risk management, and feed manufacturing. In addition to our regular courses, programs are developed to address new trends in the food and feed industries.

The newest initiative at NCI is the Food Barley Program that is designed to increase the utilization of barley as a food ingredient. We are working with national barley industry leaders and growers to promote food barley use in other countries. Several states, including North Dakota and Montana, are involved in this initiative.

Mark Weber

At NCI, we have worked for years with barley malt and barley in animal feeds, and now we are addressing the potential of food barley. There is great promise for food barley, especially in Asia. Japan and Korea have a tradition already of using food barley. Consumers need to become more aware of barley's nutritional value. For example, barley contains beta-glucan, a component that aids heart health.

NCI's technical staff is developing several bakery product formulations and recipes that increase the amount of barley flour in baked products such as pan bread, muffins, bagels, cookies, and pizza but without sacrificing performance, taste, color, or appearance.

With the passage of the Food Safety Modernization Act, the feed industry has expressed interest in learning more about how it can ensure meeting the new standards. In response, NCI has hosted several short courses that address developing a Hazard Analysis and Critical Control Points (HACCP) plan.

Customized courses for individual companies are increasing at NCI. These courses are confidential and provide a setting where participants can discuss company issues openly.

Q. Since mid-August 2011, there have been several key visits to NCI by milling industry personnel from various foreign countries. What have been some of NCI's key objectives in hosting such events?

A. NCI's mission is to inform global crop buyers through technical education and services about the crops' quality characteristics in our four-state region. NCI provides information on marketing and technical utilization of northern grown commodities for domestic ▶

and export markets. Since 1983, NCI has hosted crop buyers, technical experts, commodity traders, processors and producers from 128 nations.

Visitors to NCI represent bakers, millers, grain merchandisers, and trade groups from throughout the world. NCI works in cooperation with regional state wheat commissions to disseminate information on crop quality aspects, varietal development, current crop conditions, and the grain marketing system.

Many crop buyers also come to NCI to attend short courses. NCI's very popular and number one course is its grain marketing short course called Grain Procurement Management for Importers. On average, this course draws about 30 participants from 10 to 18 nations.

Q. What type of outreach efforts are being implemented to educate millers in North America and worldwide about the importance of NCI?

A. Despite the widespread use of electronic communications nowadays, NCI's philosophy still remains that it is very beneficial to bring people here to our region and to experience and learn things firsthand and interact with others.

NCI has been involved in the development of many well-known and commercially available products in the supermarket.

- Mark Weber, director, NCI

It is important for participants to come here and see where their ingredients come from, to visit with the producers on their farms, to see how the grain moves from the farm to the market, to visit with the grain handlers, and to see what happens in the facility and laboratory when crops are processed.

When producers from the four-state region can meet the people from the courses and trade teams and ask them what kind of products they need, a relationship forms that often continues for a long time.

Many of NCI's short courses and programs are requested by U.S. market promotion organizations, such as the U.S. Wheat Associates, U.S. Grains Council, U.S. Soybean Export Council, U.S. Dry Bean Council, and the U.S.A. Dry Pea and Lentil Council, who are all extremely valuable partners. NCI's staff often travels with them throughout the world to provide educational programs and technical consulting services.

Q. What are some of the success stories or projects that have resulted from NCI's efforts nationally and worldwide?

A. NCI has been involved in the development of many well-known and commercially available products in the supermarket; however, due to our confidentiality agreements, NCI can't discuss any specifics about these products.

In cooperation with the U.S. Soybean Export Council and the World Initiative for Soy in Human Health (WISHH), NCI was part of the efforts to introduce soy flour into Africa.

NCI has been hosting bakers from Nigeria since 2009, when the first of a series of employees from one company started to come to NCI to learn about using soy flour in baking.

Bakers in Nigeria began using defatted soy flour in 2009 as a result of WISHH's work with a Lagos company, where WISHH provided soy flour ►

samples through the USDA Quality Samples Program.

NCI's hands-on demonstrations and technical training gave the bakers the necessary information to make high-quality food items with soy products. Minnesota Soybean Research and Promotion Council and North Dakota Soybean Council provided scholarship funds for this program.

NCI hosted the Japanese End Product Collaborative (EPC) in 2010. The Japanese EPC team represented the four leading flour mills in Japan: Nisshin, Nitto Fuji, Nippon, and Showa Sangyo. The team spent five days baking with NCI staff, exchanging information about protocols for specific end-products, identifying flour quality specifications, and learning more about U.S. wheat classes and blends of classes.

U.S. Wheat Associates funded this EPC program. Strong support also came from the state wheat commissions in North Dakota, Minnesota, Montana, and South Dakota.

The project was organized to help NCI staff understand several things: how wheat is baked in Japan, how it is evaluated for quality, and what the important attributes of bread and flour quality are in Japan. Understanding all of this helps provide more accurate programming and better feedback to wheat breeders and producers in the region served by NCI about the needs of the international markets.

> NCI continues to enhance its short courses and technical services. . .
>
> *- Mark Weber, director, NCI*

In late November 2009, NCI also converted our pilot durum mill to a dual-purpose mill for milling durum and bread wheat flours.

A key benefit of this NCI pilot-scale size mill is that milling companies can use smaller amounts of grain to evaluate milling and flour characteristics. As wheat is milled, the staff records all the milling characteristics.

(*A rundown of this dual-purpose or "swing mill" was published in the 2010 First Quarter issue of* Milling Journal *(page 10) and is posted online at: www.bluetoad.com/publication/?i=33333.)*

Q. With your strong background in the agricultural industry, what key objectives might you pursue to help further NCI's stature in the milling industry?

A. NCI continues to enhance its short courses and technical services, as it continues to work to promote crops from the northern four-state region.

NCI staff often revamps the course content, lab equipment, and technology to stay at the forefront of the food and feed industry.

This effort would not be possible without the outstanding support and cooperation of U.S. Wheat Associates and other national and regional commodity producer groups, and the excellent and talented team of faculty scientists within the departments of food and cereal science, plant sciences, agribusiness, and applied economics plus other departments, not only at North Dakota State University but also at the University of Minnesota, South Dakota State University, and Montana State University.

Karl Ohm, associate editor