

2012

Year in Review



# Blizzard Watch

NDSU | PLANT SCIENCES

## From the Department Head



Dr. Richard Horsley,  
Department Head

2012 was a year in which many Plant Sciences faculty were recognized for their contributions to the university and state. NDSU President Bresciani, in his October State of the University address, named Dr. Elias Elias a University Distinguished Professor (UDP). This is the highest honor NDSU bestows on its faculty and Dr. Elias became the university's tenth UDP and the department's first faculty member to receive this honor. Dr. Elias has been a friend and colleague for many years and it was exciting to see him recognized for all he has given to NDSU and the state of North Dakota. North Dakota and Montana sow over 75% of the nation's durum wheat and Dr. Elias' durum cultivar releases are grown on more than 90% of these acres.

The Department of Plant Sciences continues to be the largest department on campus, with over 40 faculty and nearly 130 full-time employees. In 2012 we saw the retirement of four research support staff that had a combined length of service to NDSU of over 140 years. They were Bryce Farnsworth (potato breeding), Larry Chaput (woody plant improvement), Lenny Luecke (sugarbeet weed control), and Rachel Olson (spring wheat quality). Dr. Ron Smith, Extension horticulturist, also retired in 2012 following 27 years of service at NDSU. We are currently in the process of filling his position. New faculty hires to the department are Dr. Andy

Robinson (potato Extension specialist), Dr. Mukhlesur Rahman (canola breeding and genetics), and Dr. Rebekah Oliver (undergraduate teaching). In agriculture administration at NDSU, Dr. Chris Boerboom was named Director of the NDSU Extension Service following a national search.

Enrollment at NDSU in fall 2012 was nearly 14,500 students. Undergraduate enrollment in Plant Sciences programs set an all time high with 244 students (197 in Crop and Weed Sciences, 29 in Horticulture, and 18 in Sports and Urban Turfgrass Management). The Crop and Weed Sciences (CWS) program has more than doubled from 98 students in 2008. The increases in the CWS program are driven by strong employment opportunities in the region. Many of the CWS students have multiple job offers following graduation. Our graduate student enrollment in the Plant Sciences MS and PhD programs and the Horticulture MS program is also strong, with over 70 total students in all degree programs.

The 2012 growing season in North Dakota was vastly improved over that of 2011, when over 25% of the state's crop acreage went unplanted due to overly wet conditions. While much of the Midwest and Great Plains suffered through the toughest drought since 1988, North Dakota's crops did well because of adequate subsoil moisture accumulated over several wet growing seasons in a row. Strong crop prices and

growing oil and natural gas industries in western North Dakota allowed the state to be one of a few states in 2012 to have a budget surplus. The North Dakota Legislature is meeting in 2013 and the State Board of Agricultural Research and Education (SBARE) proposed multiple initiatives for funding that would benefit our research and Extension programs. Proposed additions for the department include two faculty positions (one each in bioinformatics and genomics), technical support for Extension weed science and potatoes, and operating support for many of our crop breeding/improvement programs.

Finally, all funding for the new greenhouse complex has been received and construction on the third and final phase should be completed by the end of July. The third phase of construction includes a biosafety level three (BL3-P) component that will allow for research using pathogens and insect pests that are not present in the United States. Before leaving the BL3-P greenhouse, air, water, plants, and clothing are treated to prevent the release of pathogens and pests and all researchers must shower before leaving the facility. When the new greenhouse complex is completed, there will be nearly two acres of research greenhouse space under glass.

## Faculty Additions and Updates

### Dr. Harlene Hatterman-Valenti

was appointed to the assistant department head role, which will involve oversight on the department's assessment of student learning annual report; oversight on the department's peer-review of teaching; ex officio member of the department's Curriculum Committee; and addressing undergraduate course waiver and course equivalency requests.



### Dr. Andy Robinson

joined the department in April as assistant professor and Extension agronomist in potato production. He received his B.S. in agronomy from Brigham Young University, and completed his M.S. in agronomy and his Ph.D. in weed science at Purdue University. Prior to joining Plant Sciences, he worked as a graduate research assistant at Purdue University. Robinson has a joint appointment with the University of Minnesota, and his areas of responsibility are in Extension and research for potato production in North Dakota and Minnesota. His research is focused on developing science-based solutions to address real-world problems in potato production, enabling producers to increase economic and environmental sustainability through improved crop management. He describes Extension as a passion and enjoys meeting and talking with potato growers to understand their operations and where Extension



can serve them. His webpage ([www.ag.ndsu.edu/potatoextension/](http://www.ag.ndsu.edu/potatoextension/)) focuses on providing potato growers timely information.

### Dr. Rebekah Oliver

joined the department in December as assistant professor of practice. She received a B.S. in microbiology and a Ph.D. in plant sciences, both from NDSU. Prior to joining the Plant Sciences faculty, she worked as a postdoctoral research geneticist at the USDA in Aberdeen, ID, and with General Mills Crop Biosciences in Kannapolis, NC. She will teach Genetics and World Food Crops at NDSU.



**Dr. Mukhlesur Rahman** was selected for the assistant professor and canola breeder position following a national search. Rahman previously held the

position of research assistant professor in canola breeding at NDSU since 2010. He earned his Ph.D. in plant breeding and genomics from University of Manitoba, Canada.

## Visiting Scientists

Our department was privileged to have several visiting scientists spend time working with faculty researchers this year. **Gang Feng**, **Maolin Zhao**, and **Qi Zheng** all worked with Steven Xu; **Ping He** worked with Wun Chao; **Marco Bizzarri** worked with Chao C. Jan; and **Miroslava Hristova-Cherbadzhi** worked with Brent Hulke. All were located at USDA-ARS Northern Crop Science Lab. **Yuquan Wang** worked with Shiaoan Chao at USDA-ARS Biosciences Research Lab. In

addition, **Mohammed Alamri** worked with Mohamed Mergoum in HRSW breeding; **Sergio Cabello Leiva** and **Adnan Orak** worked with Marisol Berti in forages; **Rawnaq Chowdhury** worked with Kevin McPhee in pulse crops; **Ricardo Silveira** worked with Phil McClean in genomics and dry bean genetics; **Franco Wiesser-Gomez** worked with Joel Ransom in small grains; **Seviye Yaver** worked with Burton Johnson in minor and new crop production; and **Galindo Jimenez**

worked with Juan Osorno in dry bean breeding. Visiting scientists who are continuing their work with us in 2013 include **Maribel Ovando-Martinez** and **Takahiro Ueno** working with Senay Simsek in wheat quality; **Wei Zhang** working with Xiwen Cai in wheat genetics and cytology; and **Ming Zhang** working with Chao C. Jan at USDA-ARS Northern Crop Science Lab.

## Staff Additions and Updates

We welcomed several new staff members to Plant Sciences in 2012, and a few staff members took on a change in position.

Postdoctoral research fellows to join the department include **Yunming Long**, who works in molecular genetics with Lili Qi, and **Hongxia Wang**, who works in sunflower cytogenetics with Chao C. Jan. Both positions are at the at the USDA-ARS Northern Crop Science Lab. **Monika Michalak de Jimenez** transferred within the department from a postdoc position in wheat germplasm enhancement with Shahryar Kianian to the postdoc position in canola breeding with Md. Mukhlesur Rahman. In early 2013, **Ajay Kumar** also

transferred from a postdoc position in wheat germplasm enhancement with Shahryar Kianian to the postdoc position in HRSW breeding and genetics with Mohamed Mergoum.

Several new research and support staff joined the department. **Grant Mehring** was hired as a research specialist in Extension agronomy with Joel Ransom. **Alex Nesemeier** joined the department as an agricultural research technician in soybean breeding with Ted Helms. **Andrew Ross** is a research specialist in canola breeding with Mukhlesur Rahman. **Aaron Carlson** transferred from Plant Pathology to Plant Sciences as a research specialist in Extension sugarbeet weed control

with Jeff Stachler. **Devin Wirth** was hired as a research specialist in Extension weed control with Rich Zollinger. **Greg Morgenson** joined the department as a research specialist in woody plant improvement with Todd West. He has collaborated in the past with Dale Herman on several variety releases. **Eric Brandvik** transferred from Plant Pathology to Plant Sciences as a research specialist in Extension potato production with Andy Robinson.

Within the Plant Sciences office, **Tami Leith** transferred from administrative secretary for the graduate program and Extension to accounting specialist.



Monika Michalak de Jimenez



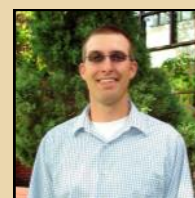
Ajay Kumar



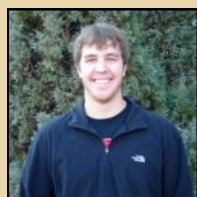
Grant Mehring



Alex Nesemeier



Aaron Carlson



Devin Wirth



Greg Morgenson



Eric Brandvik



Tami Leith

## Farewells

We said good-bye to one faculty member and several staff members who left the department for other endeavors in 2012. **Penny M. A. Kianian**, assistant professor of practice in genetics, resigned her position in July to pursue new opportunities in research. **Heath Crawford**, research specialist in canola breeding (Rahman), took a position

with an elevator near Mohall, ND. **Xuelin Fu** and **Fang Wei**, both postdocs in sunflower cytogenetics (Jan), resigned. **Sarah Gegner**, research specialist in dry bean breeding (Osorno), took a position with Dow in Grand Forks. **Snigdharani (Reena) Dash**, chemist in Durum and Pasta Quality (Manthey), resigned. **Laura Lut-**

**kemeier**, accounting specialist transferred to NDSU Grant and Contract Accounting. **Angela Scott**, grant coordinator, took a position with TMI Hospitality in Fargo. **Mary Valenzuela**, food technologist technician in Wheat Quality (Simsek), took a position at USDA-ARS in Cereal Crops Research on the NDSU campus.

## Retirements



*Rachel Olson*



*Bryce Farnsworth*



*Larry Chaput*

◆ Food Technologist **Rachel Olson** retired August 31, 2012, after 39 years of service at North Dakota State University. She was hired as a lab technician in 1973, working with Dr. Bert D'Appolonia conducting research studies in the areas of cereal carbohydrates and baking. In 1986, Olson was promoted to food technologist I, and in 1993, she was promoted to food technologist II. She most recently worked on the wheat quality project with Dr. Senay Simsek.

Olson was a member of the American Association of Cereal Chemists (AACC) and received several awards from the association. In 2000, she received the Analytical Accuracy Award - Operation of the Amylograph. In 2001, she received Certificates of Proficiency in Analysis of Farinograph, Analysis of Mixograph, and Analysis of Amylograph Peak Viscosity.

In retirement, Olson and her husband plan to winter in Lake Havasu City, AZ, where they have a retirement home. She is doing volunteer work in Havasu and at her church in Fargo. Olson reports that she “sings in the choir, has learned Mah-Jongg, loves being outdoors, spending summers on Turtle Lake, and even manages to exercise once in a while!”

◆ Research Specialist **Bryce Farnsworth** retired June 29, 2012, after 38 years of service at North Dakota State University. His employment began in 1974 as an agricultural research technician in the Department of Horticulture (now part of Plant Sciences). In 1985, his position was reclassified to research specialist. Farnsworth worked in the potato improvement program for much of his career with Dr. Robert (Bob) Johansen. His work also contributed directly to the potato breeding programs of Drs. Shelley Jansky, Gary Secor, Jim Lorenzen, Rich Novy and Asunta (Susie) Thompson.

In 1989, Farnsworth was awarded an NDSU Employee Recognition Award, and in 1998, he was recognized as an Honorary Life Member by the Potato Association of America. In 1999, having achieved 25 years of service at NDSU, he was recognized as a member of the Quarter Century Club.

Beyond the potato industry, Farnsworth has been active in the North Dakota State Horticultural Society, serving as President in 1976, the American Hemerocallis Society, a charter member of the North Dakota Pottery Collector's Society, and has been a Harvest Bowl committee member since its inception, providing floral arrange-

ments for the annual banquet.

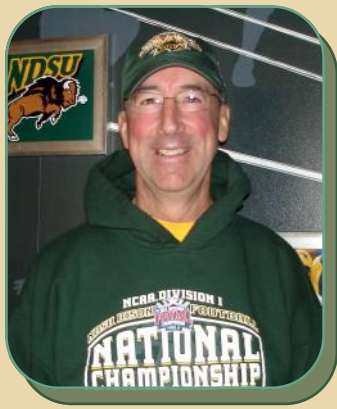
In his retirement, he will maintain an active role with the Historic Daylily Garden and Iris Collection at NDSU and will continue breeding and developing new daylily cultivars from his backyard “nursery.”

*(Submitted by Susie Thompson)*

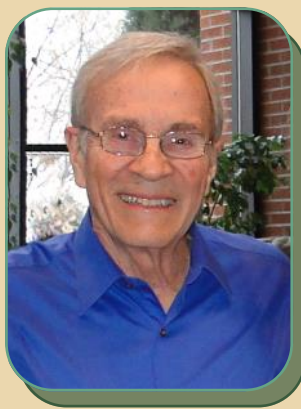
◆ Research Specialist **Larry Chaput** retired July 13, 2012, after 37 years of service at North Dakota State University. His employment began in 1975, as a research technician in fruit and vegetable research working with Dr. Neal Holland. In 1986, Chaput became a research specialist on the woody plant research project with Dr. Dale Herman and most recently with Dr. Todd West.

In 1995, Chaput received the Professional Staff Award for Excellence given by the Vice President and Dean of NDSU Agricultural Affairs. In 2000, he was recognized as a member of the Quarter Century Club. In 2007, he was a recipient of a Staff Recognition Award given by the Office of Human Resources and Payroll.

In his retirement, Chaput plans to spend summers at his lake cabin on Big Birch Lake near Sauk Center, MN. He looks forward to spending the winter



**Lenny Luecke**



**Ron Smith**

months in Apache Wells, AZ, a golf course development near Mesa.

◆ Research Specialist **John (Lenny) Luecke** retired April 13, 2012, after 31 years of service in the Extension sugarbeet weed control project for North Dakota State University and the University of Minnesota. His employment in the department began in 1981, as an agricultural research technician working with Dr. Alan Dexter. His position was later upgraded to agricultural research specialist. He most recently worked with Dr. Jeff Stachler. Luecke has been a professional member of the North Central Weed Science Society and the American Society of Sugarbeet Technologists.

In 1997, Luecke was awarded the Professional Staff Award for Excellence given by the Vice President and Dean of NDSU Agricultural Affairs. In 2006, he became a member of the Quarter Century Club.

In addition to his work at NDSU, Luecke has run his own contract research company, KayJay Ag Services, since 1991, which he will continue in retirement.

◆ Extension Horticulturist **Ron Smith** retired December 31, 2012, after 27 years of service at North Dakota

State University. He joined the NDSU Department of Plant Sciences in 1985 as an associate professor, with responsibilities primarily in Extension, along with teaching and research.

“Ron has done field studies on vegetable selection for home gardens, herb growing and use, turfgrass variety trials, integrated pest management study in landscape management, assisted in the establishment and maintenance of the RedHawks baseball field, renovated NDSU's football practice fields and maintained them for 12 years,” department head Rich Horsley says. “He also played a major role in developing and maintaining the NDSU horticulture gardens.”

Ron has taught classes in turfgrass management, landscape estimating and contracting, evolution and history of wine in America, 16 Master Gardener classes through the interactive video network (IVN), answered 40,000 to 50,000 questions in his “Hortiscope” column and answered some 22,000-plus phone calls.

He has visited 76 communities in North Dakota to deliver various programs, has written numerous Extension publications and has been invited to speak on various subjects in several states across the Midwest.

His weekly “Hortiscope” column appeared in at least 56 newspapers around the region. He has answered questions in the column that were local and international in scope. He answered questions monthly on North Dakota Public Radio’s “Hear It Now” program, which is heard across the state. During the growing season, Smith was a weekly guest on KQLX radio and appeared on three *Little Garden on the Prairie* TV programs.

Smith has been published in various magazines, such as *Prairie Home*, *Prairie Business*, *Golf Course Management*, *Fine Gardening Magazine* and *American Nurseryman*.

“He has written specifications for grass varieties and cultivars for the Kings Walk Golf Course in Grand Forks, done field research with turfgrass varieties and cultivars in Fargo and Dickinson, flower variety evaluations in Fargo, Dickinson and Williston and medicinal herb research, primarily with *Echinacea*, in Fargo, Dickinson and Williston,” Horsley says.

Smith has won numerous awards and recognitions during his tenure at NDSU, including the Mortar Board Preferred Professor Award in 2000, Blue Key Honor Society Distinguished Educator Award in 2003, Apple Polisher Award in 2006, Agriculture Communication Communicator of the Year Award in 1991 and Award for Excellence in Programs in 1989 and 2001.

Smith is active in several professional organizations, and is a certified professional horticulturist and International Society of Arboriculture certified arborist.

*(Adapted from NDSU Agriculture Communication news release, Nov. 16, 2012, Rich Mattern, editor.)*

## Elias Named a University Distinguished Professor

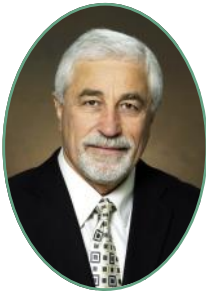


Photo credit: NDSU University Relations

J. F. Carter Durum, Wheat Breeding/Genetics Endowed Professor **Elias M. Elias** was named a NDSU University Distinguished Professor by President Dean Bresciani during his State of the University address in October. This is the highest honor that can be bestowed on a faculty member at NDSU.

Criteria for selection as a University Distinguished Professor includes “an outstanding record of sustained, high-quality and appropriately balanced contributions to all three areas of research or creative activity, instruction and service.” A University Distinguished Professor is expected to “demonstrate the highest standards of good character, academic integrity and university leadership, and to demonstrate a significant impact beyond his or her individual program.”

“Dr. Elias’ scholarly accomplishments and contributions to some of the most pressing needs of our state, nation and increasingly the world, define this recognition which he so richly deserves,” Bresciani said.

Elias is the university’s tenth University Distinguished Professor and the department’s first faculty member to receive this honor.

(Sources: [www.ndsu.edu/president/distinguished\\_professors/](http://www.ndsu.edu/president/distinguished_professors/) and [www.ndsu.edu/news/view/article/15356/](http://www.ndsu.edu/news/view/article/15356/))

## Faculty and Staff Earn Recognitions

◆ **Mohamed Mergoum** was recognized as a Fellow of the American Society of



Photo credit: American Society of Agronomy

Agronomy for 2012 during the ASA Annual Meetings in Cincinnati, OH. Fellow is the highest recognition bestowed by the Society. According to the ASA website, “members of the Society nominate worthy colleagues based on their professional achievements and meritorious service. Nominees will have made outstanding contributions in an area of specialization whether in research, teaching, extension, service, or administration and whether in public, commercial or private service activities.”

([www.agronomy.org](http://www.agronomy.org))

◆ **Elias M. Elias** was awarded the Amber Award by the U.S. Durum Growers Association. The award is given for outstanding commitment to the durum industry.

◆ **Susie Thompson** was featured in the February/March 2012 issue of *Area Woman Magazine*, a local publication. The article highlighted Thompson’s history as a potato breeder and her work at NDSU. To view the full article online, go to [http://issuu.com/areawoman/docs/aw\\_fm12](http://issuu.com/areawoman/docs/aw_fm12) (pp. 83-85).

◆ **Chiwon Lee** was selected by the Office of International Programs to receive a faculty Green and Golden Globe Diversity Award.



Photo credit: NDSU International Programs

The annual awards ceremony held by the NDSU Office of Equity, Diversity and Global Outreach seeks to “acknowledge the efforts of students, faculty and staff from across the university who create a welcoming, safe and inclusive environment where all people can learn and work.” (*It’s Happening at State*, Mar. 15) Lee was chosen as a recipient for this

award “because of all [he has] done, and continue[s] to do, towards promoting a campus climate that is open and welcoming to all areas of diversity.”

◆ **Prem Jauhar**, research geneticist and Plant Sciences adjunct professor of cytogenetics (USDA-ARS, Northern Crop Science Lab), was elected one of five Foreign Fellows



Photo credit: NDSU University Relations

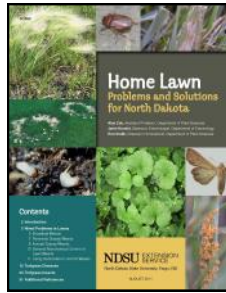
of the National Academy of Sciences of India (NASI) for 2012. Jauhar says, “I feel honored to be in this elite list with four highly accomplished scientists elected as Foreign Fellows.” Founded in 1930, NASI is one of the oldest academies in India.

◆ **Harlene Hatterman-Valenti** was elected to serve as President-Elect of the NDSU Faculty Senate for the 2012-13 term.

(Continued on page 7)

## Faculty and Staff Earn Recognitions (cont.)

- ◆ The NDSU Extension Service publication *Home Lawn Problems and Solutions for North Dakota* by **Alan Zuk**, Janet Knodel (Plant



Pathology) and **Ron Smith**, was one of three documents in the state selected by the North Dakota Library Association to receive the 2012 Notable State Government Documents award. The top three documents are submitted for inclusion in the American Library Association Government Document Round Table's (GODORT) Notable Government Documents list. The publication can be viewed on the NDSU website at [www.ag.ndsu.edu/pubs/plantsci/landscap/h1553.pdf](http://www.ag.ndsu.edu/pubs/plantsci/landscap/h1553.pdf) (Sources: *Let's Communicate*, Sept. 6, 2012; *ND Library Association website* [www.ndla.info/](http://www.ndla.info/))

- ◆ **Alan Zuk** and **Susie Thompson**, along with crop and weed sciences student James Steinberger, were featured in an article in *The Forum of Fargo-Moorhead*. The article highlighted the student service project that delivers surplus potatoes to families and food banks across the Upper Midwest. To view the full article online, go to [http://www.inforum.com/event/article/id/381397/publisher\\_ID/1/](http://www.inforum.com/event/article/id/381397/publisher_ID/1/).

- ◆ **Collin Auwarter** received a 2012 NDSU Employee Recognition Award for professional banded employees at the 24th Annual NDSU Employee Recognition Luncheon. Collin is a research specialist in the high value crops project.

- ◆ **Craig** and **Karen Hertsgaard** were recognized as 2012 Harvest Bowl Honorees for Cass County at the 39th Annual Harvest Bowl. Harvest Bowl, a program of the NDSU Alumni Association which "celebrates

excellence in agriculture and Bison athletics... annually recognizes success, dedication and hard work of outstanding agriculturists in 53 counties in North Dakota and 10 counties in Minnesota." Honorees were recognized at a social, dinner and awards program and also attended a Bison home football game.

(Source: *NDSU Alumni Association*, [www.ndsualumni.com/netcommunity/page.aspx?pid=272](http://www.ndsualumni.com/netcommunity/page.aspx?pid=272))

- ◆ **Deven Styczynski** was recognized by Staff Senate with a Campus Kudos award. Deven received the award along with Adam Christiansen and Bill Lenarz for their efforts to create a float for the Homecoming parade. Staff Senate sponsors the Campus Kudos program "to encourage NDSU employees to recognize co-workers [for] customer service, continuous improvement, teamwork, integrity and quality." (*NDSU Staff Senate Messenger*, Feb. 2013; [www.ndsu.edu/fileadmin/staffsenate/messenger/2013-02messenger.pdf](http://www.ndsu.edu/fileadmin/staffsenate/messenger/2013-02messenger.pdf))

## Employee Years of Service

### Years of Service

#### 5 Years

Karen Hertsgaard

#### 15 Years

Sandra Mark  
Rachel McArthur

#### 25 Years

Mark Ciernia

#### 10 Years

Dave Hanson  
Martin Hochhalter  
Lisa Johnson  
Vicki Magnusson

#### 20 Years

Brenda Deckard  
James Gillespie  
Brent Hinsz

#### 35 Years

Duane Wanner



Mark Ciernia

## Graduate Students Earn Recognitions

◆ **Aaron Hoppe** was selected as a recipient of the ND Soybean Council Graduate Student Scholarship by the College of Agriculture, Food Systems, and Natural Resources. The \$3,000 scholarship goes to a deserving graduate student who is involved in research that will benefit the soybean industry. Aaron's advisor is Hans Kandel.

◆ **Aman Anand** won a second place award for his poster titled "Field pea competitive abilities for weed suppression in organic agriculture" at the Western Society of Weed Science (WSWS) conference in Reno, NV. Aman's advisor is Greta Gramig.

◆ In March, 16 NDSU Plant Sciences graduate students attended the 28th Annual Plant Sciences Graduate Student Symposium at the University of Manitoba, Winnipeg. Over 70 participants attended from three schools, including NDSU, the University of Manitoba, and the University of Saskatchewan. 11 NDSU students gave presentations in three categories, and four out of nine awards were won by these students. In the Plant Breeding



and Genetics category, **Filippo Bassi** won first place for his presentation, "Illumina, wheat zipper, and radiation hybrids for synteny analysis of the Scs region of wheat," and **Md. Abdullah Bari** placed third with his presentation, "Combining ability analysis of expired proprietary short-season maize lines." In the Plant Physiology and Plant Pathology category, **Itai Mutukwa** won first place for her presentation, "Drying and pretreatments affect sensory and nutritional quality of oyster mushrooms." In the Agronomy, Weed Science and Ecology category, **Adriana Rodriguez** placed first with her presentation, "Glandular Trichomes effect on Colorado potato beetle (Coleoptera: Chrysomelidae) feeding and oviposition habits."

◆ Cereal Science graduate student **Meliza Abeyratne** received an Equity, Diversity and Global Outreach Academic Achievement Award at the annual NDSU Green and Golden Globe Diversity Awards in April. Meliza's advisor is Senay Simsek.

◆ **Dulan Samarappuli** was awarded the Association for the Advancement of Industrial Crops (AAIC) Student Travel Grant for the Fibers & Cellulosic Division. The award covered lodging and travel expenses up to \$1000 to attend the AAIC annual meeting in Sonoma, California. Award recipients are required to give a presentation during the Fibers and Cellulosic Division session at the meeting. Dulan's advisor is Marisol Berti.

◆ **Samira Mafi Moghaddam** was awarded the Phi Kappa Phi Love of Learning award in September. This award helps fund post-baccalaureate studies and/or career development for active Phi Kappa Phi members. Samira's advisor is Phil McClean. ([http://www.phikappaphi.org/Web/Awards/Love\\_of\\_Learning.html](http://www.phikappaphi.org/Web/Awards/Love_of_Learning.html))

### 2012 Graduates

#### MS

Katie Conklin (*Plant Sciences, Lym*)

Alicia (Hall) Harstad (*Plant Sciences, Howatt*)

Nathaniel Lungren (*Plant Sciences, Ransom*)

Andre Luis Rodrigues Miranda (*Plant Sciences, McPhee*)

Jonathan Neubauer (*Plant Sciences, Lulai/Thompson*)

Mory Rugg (*Plant Sciences, Mergoum*)

Santosh Sharma (*Plant Sciences, Carena*)

Behzod Tashtemirov (*Plant Sciences, McPhee*)

#### PhD

Magan (Friskop) Lewis  
(*Plant Sciences, Horsley*)

James Loken  
(*Plant Sciences, Hatterman-Valenti*)

Hongxia Wang  
(*Plant Sciences, Dai*)

(In parentheses: *Program, Advisor*)





## Summer Interns

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### University of Puerto Rico Mayagüez Summer Research Fellowship Interns



Odaliz Faria Medina, Puerto Rico  
(*Plant Pathology, LeBoldus & Kinzer*)

Axel J. Acevedo Morales, Puerto Rico  
(*Plant Sciences, McPhee*)

Veronica Brotons Davila, Puerto Rico  
(*Plant Sciences, Horsley*)

### Plant Sciences Undergraduate Summer Research Fellowship Interns



Angela Christopher, Tanzania  
(*Plant Sciences, McPhee*)

Brittany (Korynta) Olson, Gilby, ND  
(*Plant Sciences, Thompson*)

Jacob Burbach, Maple Grove, MN  
(*Plant Sciences, West*)

## Scholarships

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Congratulations to the 2012-13 scholarship recipients and a wholehearted “thank you” to the scholarship sponsors! Scholarship awards this year were presented to 42 undergraduate and 19 graduate students. Total dollars

awarded were \$52,875 (\$33,145 to horticulture and crop and weed sciences undergraduates, and \$19,730 to graduate students). To view individual awards and recipients, visit [www.ag.ndsu.edu/plantsciences/](http://www.ag.ndsu.edu/plantsciences/)

[academics/scholarships](#). The scholarships were sponsored by 41 individuals or organizations. We always welcome and appreciate new scholarship sponsors. Please contact our office if you would like more information.

## Honor Society Inductees

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The NDSU chapter of the Honor Society of Phi Kappa Phi held their semi-annual new member initiation ceremony in April. Among the new members were Plant Sciences graduate student **Marina Dobrydina**, and undergraduate crop and weed sciences major **Abigail Debner**. Inductees are presented with a personalized certificate and the official Phi Kappa Phi pin sym-

bolizing their membership. “Founded in 1897 at the University of Maine, Phi Kappa Phi is the nation’s oldest, largest, and most selective collegiate honor society for all academic disciplines.” Phi Kappa Phi’s mission is “to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others.” Membership is of-

fered to upperclassmen and graduate students by invitation only based on consistently high academic achievement and is the only honor society designation eligible to appear on a student’s NDSU transcript.

(Sources: [www.ndsu.nodak.edu/ndsu/pkp/](http://www.ndsu.nodak.edu/ndsu/pkp/) and [www.phikappaphi.org/web/](http://www.phikappaphi.org/web/))

## New Plant Sciences Study Abroad Course Announced



NDSU Plant Sciences associate professor Dr. Marisol Berti will lead a new study abroad course in summer 2013. The three credit course, PLSC 379/779 "Bioenergy Crops: The European View," will introduce students to bio-

energy crop production in Europe where they will have the chance to learn, observe, and experience the production and processing of major energy crops used for electricity, biodiesel and bioethanol, first and second generation biofuels in Germany, Austria, and Italy. While traveling through the historic European cities of Vienna and Graz, Austria; Stuttgart, Germany; Venice and Bologna, Italy, students will see first-hand the bioenergy crop production and processing as it occurs in Europe.

Planned visits include the European Center for Renewable Energy, Güssing, Austria; the Technical University of Graz Bioenergy Center, Graz, Austria;



the Bioenergy Center at the University of Hohenheim, Stuttgart, Germany; and the Experimental Station of the University of Bologna in Cadriano, near Bologna, Italy.

The course will be taught by Dr. Marisol Berti and Dr. Andrea Monti, bioenergy leader at the University of Bologna, Italy.

## Students Participate in PLANET Student Career Days

*Article and photos by Todd West.*



PLANET (Professional Landcare Network) Student Career Days (<http://www.studentcareerdays.com/>) held its 36th annual 3-day competitive event at Kansas State University in March. Over 800 horticulture and landscaping undergraduate students participated from over 60 different colleges and universities across the U.S. and Canada. The students competed in events directly related to the skills necessary for a career in the green indus-

try, such as arboriculture techniques, paver installation, irrigation installation and landscape installation. The event also offered one of the largest green industry career fairs

in the U.S., giving students the opportunity to meet prospective employers and discuss employment opportunities.

This was the first year NDSU students participated. The six member team placed 44th out of 62 teams, which is not bad for a small, first year team. Teams in the top 30 had 15-50 students. Next year we aim to be in the top 25! NDSU earned recognition as one of the PLANET Career Development Series Winning Schools for teams with less than 10 members. It was awe-



some seeing NDSU on the big screen at the closing ceremony. During incoming PLANET President Jerry Grossi's speech at the closing ceremony, he commented on how wonderful it was to interact with the students and that he was given a funky hair hat by the NDSU team to help with his hair deficiency. He then put on the hat in front of all 800 students; great exposure for NDSU. We can't wait to travel to Auburn University for the 37th Annual PLANET SCD next year. Go Bison!



## Variety Releases

In 2012, the North Dakota Agricultural Experiment Station (NDAES) released new varieties **Carpio** Durum, **Elgin** Hard Red Spring Wheat, and **Jury** Oat.

**Carpio Durum** was developed by the NDSU Durum Breeding program under the direction of Elias M. Elias. General characteristics include very good yield potential; test weight similar to Divide; exceptional quality traits, very high gluten index, mixograph score, and pasta firmness; very good protein content; a good level of Fusarium Head Blight (FHB) resistance; and moderate resistance to leaf diseases.

**Elgin Hard Red Spring Wheat** was developed by the NDSU Hard Red Spring Wheat Breeding program under the direction of Mohamed Mergoum. General characteristics include wide adaptation to North Dakota spring wheat growing areas; high grain yield potential; high protein level with average test weight; good milling and baking characteristics; overall good leaf diseases resistance package; and medium resistance to scab.

**Jury Oat** was developed by the NDSU Oat Breeding program under the direction of Michael McMullen. General characteristics include high yield

potential; high milling quality grain; and second oat cultivar with resistance to prevalent races of both crown rust and stem rust.

*(Information provided by Gonzalo Rojas-Cifuentes, ND Foundation Seedstocks.)*



## Top Revenue Producing Varieties

The NDSU Research Foundation reported in its FY 2012 Annual Report that “‘Glenn’, ‘Barlow’ and ‘Faller’ wheat and ‘Dakota Pearl’ potato varieties were the top revenue generating varieties for FY12.” ‘Glenn’ hard red spring wheat was released in 2005, ‘Faller’ in 2007 and ‘Barlow’ in 2009. ‘Dakota Pearl’ potato was released in 1999.

In addition, the “Dakota Pinnacle®

Asian White Birch ‘Fargo’ is the top horticultural variety contributing to revenue in FY12.” The variety was introduced in 1996.

Each of these varieties was developed by Plant Sciences breeding/research programs and released by the ND Agricultural Experiment Station.

Revenue collected by the NDSU Research Foundation from royalties and fees is distributed to “NDSU plant

breeders/inventors, colleges and departments actively involved in developing innovations in agriculture and other fields.”

*(Source: NDSU Research Foundation, <http://ndsuresearchfoundation.org/images/pdf/Annual%20Report%202012.pdf> and <http://ndsuresearchfoundation.org/images/pdf/NDSURF%20Ag%20Factsheet.pdf>)*

## NDSU Potato Cultivar Licensed for Canadian Market

‘Dakota Trailblazer,’ a potato cultivar developed by the NDSU potato breeding program, under the direction of **Susie Thompson**, has been chosen by McCain Produce, Inc., the largest producer of processed potato products in Canada and the world, to be commercialized and used for production in the Canadian market. The company has signed an Exclusive License Agree-

ment with the NDSU Research Foundation for rights to the potato in Canada. ‘Dakota Trailblazer’ is the first cultivar released from NDSU that is suitable for the production of French fries. Thompson says, “It is receiving wide attention in North America and beyond because of its reduced need for nitrogen fertilizer, low water use requirements, and because of low acrylamide levels in

fried products. The NDSU potato improvement team hopes it will be the first of many successful releases with both frozen processing and tablestock potential.”

*(Source: NDSU Technology Transfer Office, Tech Transfer Times, Fall 2012, [http://www.ndsu.edu/research/technology\\_transfer\\_office/tech\\_transfer\\_times.html](http://www.ndsu.edu/research/technology_transfer_office/tech_transfer_times.html))*

## Magnolia Breeding Program Established

Article by Ryan Johnson, *The Forum of Fargo-Moorhead*. Reprinted with permission.

Absaraka, N.D. - Magnolias might conjure up images of Mississippi and the South, but a team of North Dakota State University researchers could eventually bring a cold-hardy version of the tree to Red River Valley lawns. NDSU's 35-acre Dale E. Herman Research Arboretum has housed the state's largest collection of tree and shrub species since the early 1970s just east of Absaraka, about 35 miles northwest of Fargo. The work already has led to the release of about 50 new plants or cultivars to nurseries across the U.S., Canada and Australia that are capable of withstanding the unforgiving conditions of the Northern Plains. The arboretum remains somewhat of a "hidden jewel," largely unknown to the region, said Director Todd West. But its research helped develop new cold-hardy plants, as well as recommended species of existing plants for landscapers and nurseries that grow best here — functioning as a hyper-localized version of Consumer Reports when it comes to plant sciences. "The idea is

we can make these recommendations for people and not waste their time and not waste their money," he said. It's not a quick job. West said one of the arboretum's newest projects is testing hand-pollinated crosses of magnolia trees that have proved hardy in northern Wisconsin. He visited the breeder this spring, making about 50 crosses of



Photo courtesy of Todd West, photographed by Juan Roman Franco Coronado.

magnolia species, and the arboretum recently got the seeds. If their work is successful, it could give Red River Valley residents a plethora of new cold-resistant magnolias that pack brighter colors, larger leaves and more fragrant flowers than the not-yet-available Spring Welcome Magnolia — a white-flowered breed developed at the arboretum through decades of research since 1989. West said the goal is to find a cold-hardy magnolia that includes these desirable qualities and

traits that could make them into a lawn mainstay in the region. Before they can go to nurseries so the nurseries can grow them out for years to get them up to a proper size ready for sale, he said the researchers need to verify that the trees can actually thrive here through a full range of North Dakota's seasons. "Ultimately, it has to survive," he said. "It can't really have the dieback; it can't have winter damage. If it has any of those issues no matter how wonderful the plant might be, if they can't handle winter conditions, it's not right for us." West said that means the research team could test the magnolias for 15 or more years before they'd be available to nurseries, which would then need another five years or more to build up the numbers so they could sell the plants to the public. "We get excited, but it's a long-term excitement," he said. "That's why I always try to be careful when I'm talking about what we're working on because then people do get excited, but they don't quite grasp the idea that we're talking about a decade from now." For more information on the arboretum, visit <http://www.ag.ndsu.edu/plantsciences/research/woody-plants>.

## Field Days 2013



Dates to be announced....check our website.

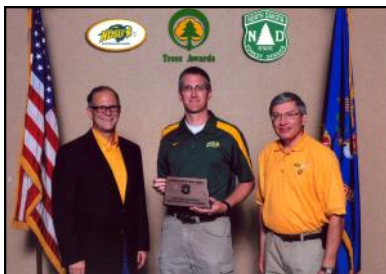
Save the date(s) and make plans to attend!



## NDSU Receives 2012 Trees Award

Article and photos by North Dakota Forest Service.

NDSU President Dean Bresciani and Dr. Todd West accepted the 2012 “TREE CELEBRATION OF THE YEAR” Trees Award at the Trees Bowl and Awards Ceremony held in Fargo on September 1, 2012. Nominations were received from across the state and the award winners were recognized by the North Dakota Forest Service and



President Bresciani and Dr. Todd West receive the Tree Celebration of the Year award on behalf of NDSU, presented by ND State Forester Larry Kotchman.

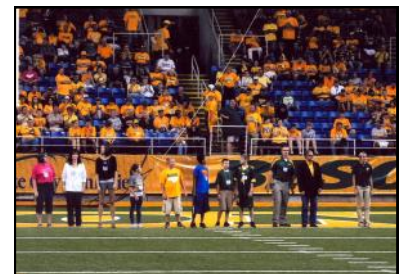
North Dakota State University.

NDSU hosted the Tree City/Line/Campus USA event for participants from across the state. The highlight was the ceremonial tree planting to recognize the achievements of the 44 Tree City USA Communities, the Tree Line USA and North Dakota’s only Tree Campus USA – NDSU! To achieve this high status, NDSU met five requirements – form an Advisory committee, create a management plan, dedicate an annual expenditure for tree planting and care, hold an Arbor Day observance, and engage the student body in a service learning project.

The NDSU selection Prairie Dream® Paper Birch – *Betula papyrifera* ‘Varen’ that participants planted together during the ceremony will serve as a lasting reminder of the dedication that communities, utilities and NDSU

have to plant and care for trees.

The award winners were honored at the Fargodome. During the awards ceremony, NDSU President Dean Bresciani and State Forester Larry Kotchman presented each winner with a special Trees Awards plaque and limited edition centennial trees print. The award winners were also recognized on the field during the NDSU half-time activities at the Trees Bowl football game in the Fargodome.



2012 Trees Award recipients are recognized on the field at the Fargodome during the Trees Bowl football game.

## NDSU Earns “Tree Campus USA” Recognition

Adapted from NDSU Agriculture Communication news release, Sept. 21, 2012, Rich Mattern, editor.

The Arbor Day Foundation has given North Dakota State University recognition through its Tree Campus USA program.

The Arbor Day Foundation has several recognition programs to inspire people to plant, nurture and celebrate trees. Two such programs are Tree City USA and Tree Campus USA. The Tree Campus USA program recognizes excellence in campus tree management, as well as student and community involvement across the nation.

NDSU put together a Campus Tree Advisory Committee and developed a plan to meet all of the required stand-

ards before submitting an application to the Arbor Day Foundation.

“Obtaining Tree Campus USA status is a very positive step for NDSU with respect to promoting and celebrating trees on our campus, community and state,” says Todd West, NDSU Plant Sciences associate professor. “Trees are an important commodity in North Dakota, especially with the harsh growth conditions in the northern Great Plains. NDSU has a strong commitment to woody plants and has a research program dedicated to woody plant improvement.”

Each year, NDSU will hold an Arbor Day observance as required by the five standards for the Tree Campus USA program.

“An Arbor Day observance provides a golden opportunity to educate the campus community to the benefits of trees on campus and the region,” West says. The Arbor Day observance was held on the NDSU campus in conjunction with NDSU homecoming week activities and included the installation of a hydrangea research trial garden on the east side of the NDSU campus. “Research is a vital component of NDSU and this project is an excellent opportunity for the extension of the NDSU woody plant research project to be made available on the NDSU campus,” West says.

NDSU is the first and only campus in the state to be given the Tree Campus USA recognition.

## Two Department Members Earn U.S. Citizenship

Two Plant Sciences department members became U.S. citizens in separate naturalization ceremonies in 2012. **Dr. Marisol Berti**, associate professor of Forages and Biomass Crop Production, became a citizen in July and **Dr. Gonzalo Rojas-Cifuentes**, assistant director of Foundation Seedstocks, became a citizen in November.

Berti and Rojas-Cifuentes each happen to be citizens of Chile by birth. A person does not lose their prior citizenship when they become a U.S. citizen. According to Berti and Rojas-Cifuentes, Chile still recognizes their Chilean citizenship. In order to renounce their Chilean citizenship, they would have to do so by oath in a Chilean court, but neither plans to do so. A dual citizen takes on not only the rights but also the obligations that accompany being a citizen of each country.

To be eligible to become a naturalized citizen of the United States, a person must hold a green card and be a permanent resident of the U.S. for three years if married to a U.S. citizen, or five years if not, before applying for citizenship. In addition, one must be able to read, write and speak English and be a person of good moral character. Once the residence requirement is met, the application for citizenship can be completed. Applicants are then interviewed and must pass two tests: one demonstrating proficiency in the English language and the other demonstrating an understanding of U.S. history and government. Failing either test twice means citizenship will be denied. Once the application for citizenship has been approved, the candidate must take the Oath of Allegiance at a naturalization ceremony. When this step has been completed, the candidate will receive his/her certificate of naturalization. ([www.immigrationdirect.com/](http://www.immigrationdirect.com/))

When asked how she decided to become a U.S. citizen, Berti cites travel and family as her reasons. She travels extensively internationally and has experienced some inconvenience at immigration in other countries when traveling with her Chilean passport. She now plans to always travel with her U.S. passport, even when going to Chile. Berti's husband and children are all U.S. citizens and she was the only Chilean in the family. "Since I am staying in the U.S. forever, I decided to become a [U.S.] citizen, although I'll always keep my accent and be Chilean in my heart," she says.



Marisol Berti with U.S. District Judge Daniel L. Hovland.

### Oath of Citizenship

*"I hereby declare, on oath, that I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, of whom or which I have heretofore been a subject or citizen; that I will support and defend the Constitution and laws of the United States of America against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I will bear arms on behalf of the United States when required by the law; that I will perform noncombatant service in the Armed Forces of the United States when required by the law; that I will perform work of national importance under civilian direction when required by the law; and that I take this obligation freely, without any mental reservation or purpose of evasion; so help me God."*

For Rojas-Cifuentes, citizenship seemed like the next logical step. He and his wife, Viviana, never planned to stay in the



Gonzalo Rojas-Cifuentes with U.S. District Court Chief Magistrate Judge Karen K. Klein.

U.S. He had a scholarship to study for his master's degree at NDSU. After three years they were to go back to Chile. However, that did not happen. Viviana began her master's degree program in NDSU's Plant Pathology department and was hired by that department when she graduated. At the same time, Rojas-Cifuentes pursued his Ph.D. in potato breeding and after graduating was hired by the Department of Plant Sciences to work in the dry bean project, six years later taking his current position as assistant director of Foundation Seedstocks. "As you can see, three years turned into 19," he says. "After nearly 20 years in the U.S. we decided we will stay in Fargo, therefore, after five years with a green card, the next step was to get our U.S. citizenship. I am proud to be Chilean by birth and American by choice."

Berti describes the naturalization ceremony as "a very solemn, emotional ceremony, and everyone was so happy to have us become U.S. citizens. It was actually a big honor." To celebrate, her husband took her out to eat. Rojas-Cifuentes and his wife will celebrate when Viviana obtains her citizenship, which they hope will be this spring. Then Berti, Rojas-Cifuentes and Dr. Luis del Rio from the Department of Plant Pathology, who also received his citizenship this fall, plan to celebrate together.

## Spotlight On....

# NDSU Horticulture Research & Demonstration Gardens



During the often harsh Red River Valley winter season, it may be difficult to believe that we will ever see the beauty of spring and summer again. But, buried beneath the snow, hope exists where perennial plant life lies dormant, just waiting for its chance to break through the soil and decorate the earth with color once again.

Likewise, at the NDSU Horticulture Research and Demonstration Gardens located at the corner of 12th Avenue and 18th Street north, the reappearance of flora is a greatly anticipated event. First to make their spring appearance are the colorful varieties of irises that make up the Art Jensen Memorial Iris Garden. Then one by one, peonies, *Echinacea*, *Sedum*, *Salvia*, ornamental grasses and more wake from their long winter nap as they stretch toward the warming sun.

Near the end of May, the annual

garden is populated with up to 300 sun loving annuals planted by Barb Laschkewitsch, trial garden coordinator, along with Master Gardener volunteers. By mid-summer the daylily display garden is in full bloom with a spectacular show of the bright yellows, oranges, and reds of over 1100 cultivars of daylilies.

Not to be missed is the shade garden sporting impatiens, coleus, viola, ferns and hostas. A handicapped accessible area includes planters designed for gardeners in wheelchairs. Concrete walkways lead from the parking area through these raised beds and into the perennial area for easier accessibility.

The gardens provide opportunities to students and the public alike. Students have the opportunity to conduct research in an actual garden environment. The public is invited to walk through the gardens to view and learn

about plants suited to this region, or to simply enjoy the beauty and peace of the gardens. Plant groupings are labeled for easy identification. There are also opportunities to volunteer to assist in the upkeep of the gardens.

Established in 2003, the NDSU Horticulture Research and Demonstration Gardens are a valuable asset to the Fargo community and will increase in this role as the future vision for the gardens to eventually cover approximately 15 acres and include instructional and meeting facilities is realized. "Like any garden, it's a work in progress, changing from month to month and year to year," says Laschkewitsch. She encourages visitors to the gardens throughout the growing season.

For more information on the gardens, visit [www.ag.ndsu.edu/plantsciences/research/gardens](http://www.ag.ndsu.edu/plantsciences/research/gardens).



# Plant Sciences Social Events





## *Plant Sciences Faculty*

|                            |   |
|----------------------------|---|
| Richard D. Horsley         | Dept. Head and Professor (6-rowed and 2-rowed barley breeding, genetics)  |
| Marisol Berti              | Associate Professor (forages and biomass crop production)   |
| Xiwen Cai                  | Associate Professor (wheat genetics and cytology, genetics teaching)  |
| Marcelo J. Carena          | Professor (corn breeding, genetics)   |
| Michael J. Christoffers    | Associate Professor (weed science, genetics teaching)   |
| Wenhao (David) Dai         | Associate Professor (woody plant physiology, biotechnology)   |
| Edward L. Deckard          | Professor (crop physiology)   |
| Elias M. Elias             | University Distinguished Professor, J.F. Carter Durum Wheat Breeding/Genetics<br>Endowed Professor (durum wheat breeding) |
| Farhad Ghavami             | Research Assistant Professor (wheat genetics, nuclear-cytoplasmic interactions)   |
| Kenneth F. Grafton         | VP for Ag. Affairs; Dean, College of AFSNR; Director, NDAES (dry bean breeding)   |
| Greta Gramig               | Assistant Professor (weed science)  |
| James J. Hammond           | Professor (flax and crambe breeding, biometrics, computer programming)  |
| Harlene Hatterman-Valenti  | Assistant Dept. Head and Associate Professor (high value crop production)   |
| Theodore C. Helms          | Professor (soybean breeding, genetics)  |
| Kirk A. Howatt             | Associate Professor (weed science-annual weeds)   |
| M. Javed Iqbal             | Research Assistant Professor (wheat genetics, radiation hybrid mapping)   |
| Burton L. Johnson          | Professor (sunflower, minor and new crop production)  |
| Thomas Kalb, II            | Extension Horticulture Specialist (western ND)  |
| Hans Kandel                | Associate Professor (crop production)   |
| Shahryar F. Kianian        | Professor (HRS, durum wheat germplasm enhancement)  |
| Chiwon W. Lee              | Professor (ornamentals, turfgrass and biotechnology teaching)   |
| Deying Li                  | Associate Professor (sports turf management)  |
| Rodney G. Lym              | Associate Dept. Head and Professor (perennial weed control)   |
| Frank A. Manthey           | Professor (durum and pasta quality)   |
| G. Francois Marais         | Associate Professor (HRWW breeding, genetics)   |
| Phillip E. McClean         | Professor (dry bean genetics, biotechnology)  |
| Michael S. McMullen        | Professor (oat breeding, genetics)  |
| Kevin McPhee               | Associate Professor (pulse crop breeding)   |
| Mohamed Mergoum            | Richard C. Frohberg Spring Wheat Breeding Endowed Professor (hard red spring<br>wheat breeding, genetics)                 |
| Rebekah Oliver             | Assistant Professor of Practice (genetics)  |
| Juan M. Osorno             | Assistant Professor (dry edible bean breeding)  |
| Mukhlesur Rahman           | Assistant Professor (canola breeding, genetics)   |
| Joel K. Ransom             | Professor (Extension agronomist, small grains and corn)   |
| Andrew Robinson            | Assistant Professor (Extension agronomist, potato production)   |
| Paul Schwarz               | Professor (malting barley quality)  |
| Kalidas Shetty             | Associate VP for Global Outreach and Professor (plant metabolism, food security)  |
| Senay Simsek               | Assistant Professor (HRS wheat end quality)   |
| Jeff Stachler              | Assistant Professor (weed control in sugarbeet)   |
| Asunta (Susie) L. Thompson | Associate Professor (potato breeding)   |
| Todd West                  | Associate Professor (woody plants improvement)  |
| M. Dale Williams           | Foundation Seedstocks Director (seedstocks)   |
| Qi (Chee) Zhang            | Assistant Professor (turfgrass stress physiology)   |
| Richard K. Zollinger       | Professor (Extension weed control)  |
| Alan Zuk                   | Assistant Professor (sports and urban turfgrass management)   |

## ***Professors Emeriti***

|                      |                       |
|----------------------|-----------------------|
| Duane R. Berglund    | H. Roald Lund         |
| Arthur A. Boe        | Shivcharan S. Maan    |
| Harold Z. Cross      | Calvin G. Messersmith |
| Alan G. Dexter       | Dwain W. Meyer        |
| Murray E. Duysen     | John D. Nalewaja      |
| Jerry D. Franckowiak | Donald C. Nelson      |
| Richard C. Frohberg  | Ronald C. Smith       |
| Dale E. Herman       | LeRoy A. Spilde       |
| Neal S. Holland      | Dean A. Whited        |

## ***Adjunct Faculty (\*USDA)***

|   |   |
|---|---|
| James V. Anderson* (plant biochemistry)           | Khwaja Hossain (wheat germplasm enhancement)          |
| Larry G. Campbell* (sugarbeet genetics)           | Brent Hulke* (sunflower breeding and genetics)        |
| Patrick M. Carr (sustainable agriculture)         | Chao C. Jan* (sunflower cytogenetics)                 |
| Shiaoman Chao* (genomics)                         | Prem P. Jauhar* (wheat cytogenetics)                  |
| Wun S. Chao* (perennial weeds)                    | Brian Jenks (weed science)                            |
| Lynn S. Dahleen* (barley genetics, biotechnology) | Ed C. Lulai* (potato physiology)                      |
| Justin Faris* (cereal crops)                      | Lili Qi* (wheat cytogenetics)                         |
| Michael E. Foley* (weed biology)                  | Gerald J. Seiler* (sunflower and sugarbeet germplasm) |
| Karen L. Fugate* (sugarbeet physiology)           | Joseph R. Sowokinos* (potato physiology)              |
| Yong Qiang Gu* (wheat germplasm enhancement)      | Jeffrey C. Suttle* (potato physiology)                |
| David P. Horvath* (perennial weed physiology)     | Steven Xu* (HRSW development)                         |

### **Beijing Forestry University, China**

Liebao Han (turfgrass science)

### **FAO, Rome, Italy**

Elcio P. Guimaraes (cereal plant breeding)

### **ICARDA, Aleppo, Syria**

Flavio Capettini (barley breeding)

### **University of Minnesota-Crookston**

Jochum Wiersma (small grains)

### **University of Minnesota-Morris**

Russell Gesch (plant physiology)

### **University of Puerto Rico-Mayagüez**

James Beaver (common bean, corn)

Bryan Brunner (tropical fruits and ornamentals)

Raul Macchiavelli (statistics)

Carlos Ortiz (root crops)

Timothy Porch (common bean)

Linda Wessel-Beaver (tropical pumpkin, veg. breeding)

## ***Postdoctoral Research Fellows and Visiting Scientists***

### **Postdocs**

Jawahar Jyoti (Horsley, barley breeding)  
Ajay Kumar (Mergoum, HRS wheat breeding)  
Zhao Liu (Jan, sunflower cytogenetics)  
Yunming Long (Qi, molecular genetics)  
Sujan Mamidi (McClellan, oat breeding)  
Monika Michalak (Rahman, wheat germ. enhancement)  
Robert Sabba (Thompson, potato germ. evaluation)  
Dipayan Sarkar (Shetty, plant metabolism, food sec.)  
Kristin Simons (Kianian, wheat germ. enhancement)  
Zahirul Talukder (Hulke, sunflower breeding/genetics)  
Hongxia Wang (Jan, sunflower cytogenetics)

### **Visiting Scientists**

Hongwei Li (Xu, HRSW development)  
Yinghai Liang (Dai, woody plant physiology)  
Aifeng Liu (Xu, HRSW development)  
Maribel Ovando Martinez (Simsek, wheat quality)  
Hongbin Tao (Ransom, small grains)  
Takahiro Ueno (Simsek, wheat quality)  
Ming Zhang (Jan, sunflower cytogenetics)  
Wei Zhang (Cai, wheat genetics and cytology)

## ***Research and Support Staff***

Matthew Abdallah (HRSW breeding and genetics)  
Hiroshi Ando (durum and pasta quality)  
Collin Auwarter (high value crop production)  
John Barr (barley quality)  
Bob Baumann (oat breeding)  
Daniel Blilie (soybean breeding)  
Eric Brandvik (potato production)  
Jeremy Buchman (potato breeding)  
Aaron Carlson (Extension sugarbeet weed control)  
Claudia Carter (durum and pasta quality)  
Kathy Christianson (perennial weeds)  
Mark Ciernia (weed control)  
Janet Davidson-Harrington (weed science)  
Brenda Deckard (Director, Plant Sci. Student Services)  
Chad Deplazes (Extension crop production)  
Shauna Pederson Dubuque (weed molecular biology)  
Jason Faller (barley breeding)  
James Gillespie (barley quality)  
Pete Gregoire (crop physiology)  
Dave Hanson (soybean breeding)  
Justin Hegstad (wheat germplasm enhancement)  
Karen Hertsgaard (Institute of Barley & Malt Science)  
Brent Hinsz (wheat quality)  
Martin Hochhalter (barley breeding and genetics)  
Christina Johnson (dry bean genetics)  
Angela Kazmierczak (weed control)  
Kreg Kercher (flax breeding)  
Michael Klobberdanz (dry bean breeding)  
Barb Laschkewitsch (vegetables and perennials)  
Rian Lee (dry bean genetics)  
Vicki Magnusson (woody plants)  
Sally Mann (durum wheat breeding)  
Sandra Mark (weed science)  
Larry Martin (soybean breeding)  
Rachel McArthur (wheat genetics and cytology)  
Kelly McMonagle (wheat quality)  
Grant Mehring (Extension small grains)  
Greg Morgenson (woody plants)  
Alex Nesemeier (soybean breeding)  
Richard Nilles (potato breeding)  
Bob Nudell (forages)  
Gloria Nygard (wheat quality)  
DeLane Olsen (wheat quality)  
Allen Peckrul (wheat germplasm enhancement)  
James Perleberg (durum and pasta quality)  
Paula Petersen (new crops)  
Bree Reetz (dry bean genetics)  
Ron Roach (weed control)  
Gonzalo Rojas-Cifuentes (Asst. Director, Seedstocks)  
Andrew Ross (canola breeding)  
Kevin Rue (turfgrass)  
Travis Sanderson (HRWW breeding)  
Stan Stancyk (durum breeding)  
Deven Styczynski (pulse crops)  
Jesse Underdahl (HRSW breeding and genetics)  
Sarah Underdahl (durum wheat breeding)  
Jody VanderWal (dry bean breeding)  
Adam Walz (HRSW breeding and genetics)  
Duane Wanner (corn breeding)  
Joyana Wardrip (seedstocks)  
Kristin Whitney (wheat quality)  
Theja Wijetunga (crop physiology)  
Devin Wirth (Extension weed control)

## ***Office Staff***

Cora Barnard, Grants Coordinator  
Kamie Beeson, Information Processing Specialist  
Eileen Buringrud, Administrative Assistant  
Michelle Grant, Senior Accounting Specialist  
Louise Heinz, Administrative Secretary  
Lisa Johnson, Administrative Secretary  
Tami Leith, Accounting Specialist  
Lorin Miller, Accountant

## Graduate Students

|                          |     | <u>Advisor</u>    |                          |     | <u>Advisor</u>        |
|--------------------------|-----|-------------------|--------------------------|-----|-----------------------|
| Wesam AbuHammad          | PhD | Elias             | Alberto Jimenez-Diaz     | PhD | Schwarz               |
| Jason Adams              | MS  | Lym               | Renata Jung              | PhD | Horsley               |
| Chiti Agarwal            | MS  | Osorno            | Ty Larson                | MS  | Marais                |
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