

BLIZZARD WATCH

NDSU

Department of Plant Sciences
2011 Year in Review



Greetings from the Department Head



Dr. Richard Horsley,
Department Head

It is with deep sorrow that this year's Blizzard Watch will not include Dr. Carter's annual update. Dr. Carter passed away in September and he will be surely missed. I know everyone looked forward to hearing from Dr. Carter and learning about his and Mrs. Carter's activities.

In last year's update I commented on the overly wet conditions during planting last year. These conditions continued through mid-July over much of the state. Over 25% of North Dakota's crop acreage went unplanted last year, with the north and northwest parts of the state being the hardest hit. Many of the department's faculty and graduate students fared similarly in their 2011 field research. On my barley breeding project, we were unable to plant two of our seven locations, lost our Fargo yield trials to saturated soils, and lost our Carrington location to hail. Hopefully, the 2012 growing season will be much better for everyone.

NDSU has seen many administrative changes in the past year. Dr. J. Bruce Rafert was named as the new Provost of NDSU in June. Prior to coming to NDSU, Dr. Rafert served as vice provost and dean of the graduate school at Clemson University. Dr. D. C. Coston, former vice president of Agriculture and University Extension at NDSU, left the university to serve as acting president of Dickinson State University (DSU) in August. Dr. Coston was named president of DSU in January 2012. In Dr. Coston's absence, Dr. Ken Grafton was named interim vice president of Agriculture and University Extension. He was named vice president of Agricultural Affairs in December. In addition to his role as vice president, Dr. Grafton maintains the duties of director of the North Dakota Agricultural Experiment Station and dean of the College of Agriculture, Food Systems, and Natural Resources (CAFSNR). Duane Hauck retired as Director of the NDSU Extension Service in December. Dr. Chris Boerboom is serving as interim director and two candidates were interviewed for the director position in February 2012. A national search was held in 2011 to select a permanent head for the Department of Plant Sciences. I was selected from three finalists for the position.

The Department presently has one vacant position, the potato extension specialist. This position is a joint position between NDSU and the University of Minnesota. Candidates for the position were interviewed in February 2012.

North Dakota continues to have a budget surplus, due in part to favorable commodity prices and the active energy sector in the western part of the state. The North Dakota Legislature meets in odd numbered years and they approved the creation of a canola breeder/geneticist position in the department. Dr. Mukhlesur Rahman is currently serving in that position. He previously was supported through a state funded Center of Excellence program. Funding was also provided to complete the third and final stage of the new greenhouse facility. All but the biosafety level 3 (BL3-P) component of the new greenhouse complex will have been built using state funds. The BL3-P component will be constructed using donations from agricultural commodity groups and other agriculture related organizations. Occupancy in the first phase of the new greenhouse complex began in August 2010, and occupancy of the phase 2 construction started in summer 2011.



Mohamed Mergoum's flooded yield trial plots at Prosper, ND, July 2011.

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Phase 2 includes three additional glasshouse ranges and 200 additional feet of headhouse space. The Legislature also provided funds for 20 half-time graduate research assistantships in the CAFSNR. The department received funding for three of the 20 GRAs.

NDSU continues to expand, with enrollment passing the 14,500 mark in fall 2011. Our undergraduate enrollment in Plant Sciences programs is at an all time high with 215 students (147 in Crop and Weed Sciences, 42 in Horticulture, and 26 in Sports and Urban Turfgrass Management). 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.

Dr. Horsley Named Plant Sciences Department Head

After a national search, **Dr. Richard Horsley**, barley breeder, professor and interim department chair, was selected as department head of Plant Sciences in November. Dr. Ken Grafton, VP for Agricultural Affairs, Dean of the College of Agriculture, Food Systems, and Natural Resources, and Director of the North Dakota Agricultural Experiment Station, made the announcement, saying, "Dr. Horsley brings a number of very positive skills and tremendous experience to the position. He will provide excellent leadership to ensure the department continues to move forward." Dr. Horsley has been the NDSU six-rowed barley breeder since 1988 and has also been responsible for the two-rowed barley breeding program since 2006. He will continue to oversee the barley breeding program and teach field design as head of the department.

Faculty Promotion



Congratulations to **Marcelo Carena**, who was promoted to Professor in July. Marcelo has been working at NDSU as the corn breeding and genetics project leader since 1999.

Meet New Faculty Member Dr. Todd West

Dr. Todd West joined the department in April as Associate Professor and Project Leader of the Woody Plant Improvement Program (60% research, 40% teaching).

I am originally from Madison, WI. I have a wonderful wife and four awesome children. I earned my bachelor's degree from the University of Wisconsin-Platteville and my master's and doctoral degrees from Southern Illinois University at Carbondale. Between my MS and PhD degrees I had a short stint as an assistant tissue culture lab manager for Walter's Gardens in Zeeland, MI. For the past 8 years I had a faculty position at West Virginia University in Morgantown, WV. West Virginia was a very interesting location; it is a state with more trees than people and being in hardiness zone 6 provided endless possibilities of very interesting plant materials. I love the green industry and am dedicated to the improvement of plant materials and providing opportunities for students to learn and become involved in this industry.



I am excited to be in North Dakota and at NDSU. We are moving forward with the woody plant trials at the NDSU Dale E. Herman Research Arboretum. This past year a record was set for the number of new plants that were put in the trials, thanks to Dr. Dale Herman and Larry Chaput. My vision for the Woody Plant Improvement Program is to continue the current evaluation system that is ongoing, focusing on species that are suited for the Northern Great Plains with respect to hardiness, fall color, and other desirable traits. My research focus will be on selection and trials of woody plants, propagation, and germplasm storage, as well as breeding efforts including mutagenic breeding. I am very excited to be working directly with the nursery industry again.

Teaching is a passion of mine; one of my favorite pastimes is interacting with students. Currently I teach the Woody Landscape Plants and Advanced Woody Landscape Plants courses as well as Arboriculture Sciences. As co-chair of the NDSU Horticulture and Forestry Club, we are developing several trips to explore the world of horticulture and urban forestry. I am also developing an undergraduate PLANET team to compete in the 35th Annual PLANET Student Career Days competition which gives students the chance to compete in events that are directly related to the skills necessary for a career in the green industry. I look forward to the coming years at NDSU and the cool plants that come out of the program. It's a great time to be in North Dakota and at NDSU!

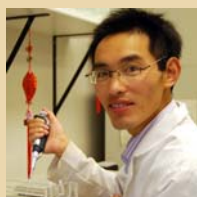
Welcome New Staff

The department welcomed several new staff members to Plant Sciences in 2011.

Postdoctoral Research Fellows to join the department include **Fang Wei**, who works in sunflower research with Chao Chien Jan, and **Kristin Simons**, who works in Wheat Germplasm Enhancement with Shahryar Kianian.

Several new research and support staff joined the department. **Mary Valenzuela** was hired as a food technology technician and **Gloria Nygard** transferred from Cereal Science as a research specialist; both work with Senay Simsek. **Hiroshi Ando** and **Claudia Carter** are food technology specialists with Frank Manthey. **Joyana Wardrip** is a research specialist in Seedstocks with Dale Williams and Gonzalo Rojas. **Toni Muffenbier** was hired as the new Executive Secretary in Seedstocks after Paulette Neva's retirement. **Deven Styczynski** was hired as a research specialist with Kevin McPhee. **Daniel Blilie** is a research technician with Ted Helms. **Bree Reetz** is a computer graphics artist in dry bean genetics with Phil McClean.

Two new personnel joined the office staff. **Lorin Miller** was hired in the position of accountant, and **Laura Lutkemeier** was hired as an accounting specialist.



Fang Wei



Kristin Simons



Mary Valenzuela



Gloria Nygard



Hiroshi Ando



Claudia Carter



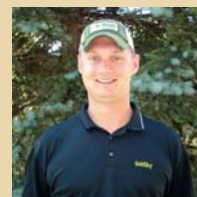
Joyana Wardrip



Toni Muffenbier



Deven Styczynski



Daniel Blilie



Bree Reetz



Lorin Miller



Laura Lutkemeier

Visiting Scientists

Our department was privileged to have several visiting scientists spend time working with faculty researchers this year. **Tatiana Belova**, **Tobiasz Druciarek** and **Monika Kladivova** worked with Shahryar Kianian in wheat germplasm enhancement. **Ali Kahraman**, **Abdullah Karasu** and **Pushparajah Thavarajah** worked with Kevin McPhee in pulse crop breeding. Thavarajah has since joined the faculty of the NDSU School of Food Systems. **Ruiqin Bai** worked with Deying Li in turfgrass; **Susana Fisher** worked with Frank Manthey in durum and pasta quality; **Xiaoyan Li** worked with Harlene Hatterman-Valenti in high value crops; **Diego Obando Rivera** worked with Joel Ransom in Extension; and **Yonghong Yang** worked with David Dai in woody plants biotechnology. Visiting scientists who are continuing their work with us in 2012 include **Gang Feng**, **Maolin Zhao**, and **Qi Zheng**, all working with Steven Xu at USDA-ARS Northern Crop Science Lab; **Ping He** working with Wun Chao at USDA-ARS Northern Crop Science Lab; and **Yuquan Wang** working with Shiaoman Chao at USDA-ARS Biosciences Research Lab.

Farewells

We said good-bye to a few staff members who left the department for other endeavors during 2011. **Nick David**, extension agronomist in potatoes, resigned in January. He took a position with R. D. Offutt Company in Park Rapids, MN. **Yin Li**, research assistant professor in barley and malt quality, resigned in September. He took a position with Malteurop in Milwaukee, WI.

Cherie Fischer, accountant, transferred to NDSU Ag Budget Office as assistant director in June.

Anantharama Rishi, postdoctoral research fellow in wheat genetics with Shahryar Kianian, completed his appointment in August. **Jim Loken**, graduate research fellow with Harlene Hatterman-Valenti, also completed his appointment in August and is working for Helena Chemical Company in Fargo. **Jerry Ries**, Research Specialist with Rich Zollinger, resigned in December. He took a position with West Central, Inc., in Fargo.



Paulette Neva Retires from NDCISA



Article courtesy of Dale Williams, ND Foundation Seedstocks

Paulette Neva, executive secretary for the North Dakota Crop Improvement and Seed Association retired December 1, 2011, after nearly twenty years of service to the North Dakota seed industry. Paulette started with Crop Improvement in 1992. She has been the association's key contact with registered seed growers in the county seed increase program for new varieties released by NDSU. Paulette's responsibilities have grown over the years and in 1994 she also began working part-time for NDSU Foundation Seedstocks. In addition, she provided office support services for the ND Dry Edible Bean Seed Growers Association for approximately 15 years. All three organizations will miss Paulette's organizational skills and institutional knowledge. She and her husband, Bob, plan to spend more time at their lake home and travel. We wish them both the best.



Look Who the Stork Delivered



Monika Michalak and Alberto Jimenez-Diaz welcomed a son, Mateo Alberto, on January 21, 2011.

Mateo weighed 8.1 pounds and was 20.9 inches long.

Jared and Laura Peterson welcomed a son, David Michael, on February 20, 2011. David weighed seven pounds, 11 ounces and was 20 inches long.

Tami Leith's daughter and son-in-law Melissa and Rev. Justin Johnson welcomed a daughter, Audrey Jane, on March 18, 2011. Audrey weighed six pounds, 11 ounces and measured 20¼ inches long. She is Tami's first grandchild.

Angela Kazmierczak and Robbie Holthusen welcomed a daughter, Maria Frances, on August 20, 2011. She weighed six pounds, three ounces, and was 18¾ inches long. Maria joins big brother Max.

Louise and Clayton Heinz's daughter and son-in-law, Julie and Dan Cosgrove, welcomed a daughter, Maya Leigh, on November 2, 2011. Maya weighed seven pounds, 10 ounces, and was 21 inches long. She is Louise and Clayton's third grandchild.

Sarah and Shane Underdahl welcomed a daughter, Emily Gladys, November 3, 2011. She weighed seven pounds, 15 ounces and was 21¼ inches long. Emily joins big brother Brodie.

Sally and Jamie Mann welcomed a son, Otto Ehli, on November 21, 2011. He weighed seven pounds, six ounces, and was 20 inches long. Otto joins big brother Brody.

Congratulations to these families! We sincerely apologize if anyone's new arrival was missed in this issue.

In Memory of Dr. Jack Carter

Dr. Jack Carter, Professor Emeritus and former Agronomy department chair, passed away September 11, 2011, at the age of 92. Dr. Carter enjoyed a distinguished career in agriculture, was a leader in several professional organizations, and was often honored for the great impact he had in the world of agriculture, both regionally and nationally. He enjoyed being with his family, spending time outdoors, and supporting Bison athletic teams. He was also known to engage in a wide variety of personal interests, most of which did not stray far from the realm of agriculture. These included developing and testing baking recipes, particularly to add flax to breads and muffins; making wine from homegrown raspberries and from grapes; gardening; and grafting different apple varieties to his apple trees. Dr. Carter was an extraordinary man who left a great legacy. He will be missed very much. He is survived by his wife, Imogene, 4 sons, 6 grandchildren and 2 great-grandchildren. A memorial service was held September 16, 2011, at Faith United Methodist Church in Fargo. The Jack F. and Iris Carter Graduate Student Fellowship is being endowed at NDSU to support doctoral candidates.



Agricultural Career Highlights

- ◆ 1941, BS in Agronomy, University of Nebraska
- ◆ 1947, MS in Agronomy, Washington State University
- ◆ 1950, PhD in Agronomy, University of Wisconsin-Madison
- ◆ 1950, Associate Professor and Professor of Agronomy, North Dakota Agriculture College – taught agronomy courses and conducted forage crop research
- ◆ 1960, Chair of Agronomy Department, North Dakota State University – initiated several new programs, and continued to serve as an academic advisor and teach advanced courses
- ◆ 1987, Retired from NDSU, Professor Emeritus – continued “going up to the office” until 2008, when prevented by ill health

Regional and National Agronomic Leadership

- ◆ Fellow of Crop Science Society of America and American Society of Agronomy
- ◆ Served as term President of CSSA
- ◆ Former President of Council for Agricultural Science and Technology
- ◆ President of Flax Institute of the United States from 1978 until recently – remained active in the promotion of flaxseed for food, feed, linseed oil, and other uses
- ◆ Editor of Sunflower Science and Technology, First Edition
- ◆ Travelled nationally and internationally to promote North Dakota agricultural products

Professional Awards and Honors

- ◆ 1979, Alpha Zeta Agricultural Teacher of the Year
- ◆ 1990, Blue Key Outstanding Educator
- ◆ 1995, Lecture room in Loftsgard Hall named in his honor
- ◆ 1995, Honorary Doctor of Science degree from NDSU
- ◆ 1999, Inducted into Agricultural Hall of Fame
- ◆ 2004, NDSU Experiment Station released “Carter” yellow-seeded flax variety
- ◆ 2005, Agri-Business Award at Harvest Bowl
- ◆ 2007, Establishment of J. F. Carter Durum Wheat Breeding/Genetics Endowed Professorship



Woody Plant Introductions



Seven superior winter hardy USDA zone 3-4 woody landscape plants were named and introduced in 2011 by professor emeritus Dale Herman and research specialist Larry Chaput. Todd West became the new Woody Plant Improvement project leader in April 2011.



Northern Spotlight™ Korean Maple

Acer pseudosieboldianum 'KorDak'

A very winterhardy selection, this cultivar has tolerated in excess of -40°F winter temperatures multiple times. Foliage is medium green and has been resistant to summer leaf scorch and tip burn. Outstanding orange to orange-red leaf colors develop in autumn, and foliage is retained throughout the winter months. This introduction was collaboratively released by NDSU and Greg Morgenson, former manager of Lincoln-Oakes Nurseries, Bismarck, ND.



Sun Beam® Ironwood

Ostrya virginiana 'Camdale'

A member of the birch family, Ironwood is a native small tree in eastern North America, including the Northern Plains. Its dark-green summer leaves change to golden-yellow in autumn and approximately 50% cling on the tree into winter. Sun Beam® grows 30' to 38' in height in 35-40 years.

A young tree showing winter foliage.

Male catkins and hop-like fruits add additional winter interest, plus its strippy bark tends to exfoliate. This cultivar performs well in northern areas where sites are not too droughty.



Canyon Treasure™ Bigtooth Maple

Acer saccharum ssp. *grandidentatum* 'Orbit'

Smaller in stature to sugar maple, the Bigtooth Maple grows in drier locations and provides an extravaganza of autumn color in the the canyons of the Rocky Mountains. Canyon Treasure™ grows in a dense, broadly-oval to globose form with quality foliage and attractive golden-orange to orange-red autumn color. Leaves have three blocky lobes, smaller and more bluntly-toothed than sugar maple. Uses include shade, specimen, residential landscape, parks and other public grounds.



Green Canyon™ Rocky Mountain Douglas-Fir

Pseudotsuga menziesii var. *glauca* 'Winterscape'

This cultivar is winter hardy and quite drought tolerant, making it a a selection that has performed very well in eastern ND for over 50 years. Green Canyon™ was named for its significantly greener foliage color, compared to most Rocky Mountain

Douglas-firs. It is very densely-pyramidal in form and its needles average 3/4" to 1" long. Green Canyon™ is attractive year-round, making it an appropriate choice for use in residential landscape, parks and other public grounds, and shelter.



Orange Aglo™ Threeflower Maple

Acer triflorum 'Jack-O-Lantern'

A small maple species native to northeast China and Korea, this cultivar has several desirable features. The quality trifoliolate compound leaves show exceptional autumn color, with leaves turning pumpkin-orange almost annually. Eventually leaves dry, turn tannish and cling on the tree throughout the winter months. No iron chlorosis symptoms have occurred in moderately alkaline pH soils. The bark is very attractive and is characterized by ash-brown to golden-orange vertical striations.



Fall Grandeur™ Red Maple

Acer rubrum 'Minnkota'

This cultivar has performed exceptionally well in NDSU arboretum evaluations for over 30 years. Its form is upright and densely ovate-elliptical. It has good foliage qualities, typically with three major leaf lobes. Fall color is a showy red. It displays no evidence of iron chlorosis in moderately alkaline pH soils. Due to its aesthetic qualities and superior adaptation in the Northern Plains, Fall Grandeur™ is recommended for planting over a more extensive area of the Northern Great Plains and Upper Midwest.



Northern Esteem™ Black Poplar

Populus nigra 'Schreiner'

This poplar has outperformed a large percentage of *Populus* plant material under evaluation for over 30 years at NDSU. This superior, hardy cultivar is a large, rapid growing tree. It has glossy, emerald green deltoid-shaped leaves and has exhibited high disease and insect resistance. Uses include shelterbelt, farmstead windbreak, wildlife and other shelter/conservation plantings.

Variety Releases



Small Grains

In 2011, the North Dakota Agricultural Experiment Station (NDAES) released **Prosper** Hard Red Spring Wheat (joint release with Minnesota Experiment Station), **Velva** Hard Red Spring Wheat, and **Newburg** Oat.

Prosper Hard Red Spring Wheat was developed by the Hard Red Spring Wheat Breeding Program under the direction of Mohamed Mergoum. This variety is a joint release with the Minnesota Experiment Station. General characteristics include being adapted to eastern ND and western MN; very high grain yield similar to Faller; semi-dwarf conventional height with medium early maturity; average protein and test weight; good milling qualities and good baking properties; and good leaf diseases package and medium resistant to scab.

Velva Hard Red Spring Wheat was developed by the Hard Red Spring Wheat Breeding Program (Mergoum). General characteristics include being adapted to central and western ND; higher grain yield than most cultivars adapted to the same region, including Glenn; semi-dwarf line with medium late maturity; good protein with average milling properties; good baking properties; average test weight; excellent leaf diseases package, better than Reeder; resistant to septorias and races 2 and 3 of tan spot; and resistant or medium resistant to leaf and stem rusts.

Newburg Oat was developed by the Oat Breeding Program under the direction of Michael McMullen. General characteristics include exceptional yield potential; average test weight, protein and groat percentage; and it is the only commercial oat cultivar with resistance to crown and stem rust race NA67.

Corn

During 2011, the NDSU Corn Breeding Program, under the direction of Marcelo Carena, released **nine new inbred lines** (ND2007, ND2008, ND2009, ND2010, ND2011, ND2012, ND2013, ND2014, and ND2015). **Four improved populations** were released to our exclusive and non-exclusive partners. In addition, **two new population hybrids** with 100% NDSU genetic background were identified for commercial production and ethanol utilization in central North Dakota. These products had improved drought and cold tolerance, yield, fast dry down, test weight, and grain quality (for ethanol and livestock).

Campus Arboretum Walking Trails

News Release by NDSU Ag Communication; Ellen Crawford, Editor

North Dakota State University's students, faculty, alumni and visitors will be able to get a close-up look at the diversity of trees on campus.

NDSU Facilities Management Department staff and **Dale Herman**, professor emeritus in NDSU's Plant Sciences Department, have developed a walking trail through the Campus Arboretum. The 1.8-mile trail takes walkers past 66 trees south of Centennial Boulevard. The trail's creators plan to develop another trail for trees north of Centennial Boulevard.

"Nearly 200 new species and cultivated varieties have been planted on the campus in recent years," Herman says. "An application also has been submitted for designation of NDSU as a Tree Campus USA."

Anyone taking the trail can pick up a tour guide with a map showing the location of the featured trees and a description of each one. The trail is color coded and each tree is identified by number. The state symbol in front of a description indicates the tree is native to North Dakota.

The walking trail starts north of the Memorial Union on the northeast side of the Family Life Center. Tour guides are available from the Bison Card Office at the NDSU Memorial Union and the customer service desk at the Wallman Wellness Center. The guide also is available online at <http://www.ag.ndsu.nodak.edu/plantsci/>.

A Student Government Improvement Grant helped fund this project.



Prairie Statesman® Swiss Stone Pine - *Pinus cembra* 'Herman'

Research Highlights

The department provides research and extension in plant breeding, genetics, weed science, biotechnology, crop production, crop physiology, sports and urban turfgrass management, horticulture, and forestry. Basic and applied research in these programs provides new wealth, economic development, and improved quality of life in the state and region. Extension specialists work closely with research scientists to develop multi-disciplinary educational programs to introduce new cultivars, effective cultural practices, efficient weed control strategies, integrated pest management and improved horticultural practices. Here is a sampling of the impact of our research and extension programs.

Breeding

◆ Durum Wheat, Elias M. Elias

Over 90% of the durum acreage in North Dakota is planted with varieties developed by NDSU that generate over \$700 million annually directly to producers.

◆ Dry Beans, Juan Osorno

In the MIN-DAK region 50% of pinto bean, 66% of black bean, and 17% of navy bean crops are NDSU varieties. Dry bean varieties from NDSU contributed \$134 million to the state's economy in 2010.

Cereal Science

◆ HRSW End Quality, Senay Simsek

The wheat quality program insures superior spring wheat varieties are grown in North Dakota, which results in \$6.4 billion in economic activity annually.

Extension

◆ Small Grains, Joel Ransom

Information provided by the NDSU extension service has helped farmers improve crop production. Wheat yields have increased by nearly a bushel per acre per year for the last 10 years, while the value of the corn crop has increased to more than \$1 billion annually.

◆ Weed Control, Rich Zollinger

The North Dakota Weed Control Guide is the flagship publication of the NDSU Extension Service and each year 20,000 to 25,000 copies are printed.

Horticulture

◆ Woody Plant Improvement, Todd West

NDSU woody plant introductions are currently being propagated for sale by commercial wholesale firms in three countries including 35 nurseries across 14 states in the U.S.

Production

◆ Seedstocks, Dale Williams

Approximately 75% of spring wheat, 90% of durum wheat and 90% of barley planted in North Dakota was seeded with varieties from foundation seed maintained and distributed by the NDSU Foundation Seedstocks. The North Dakota wheat crop alone has an estimated yearly value of approximately \$2 billion.

Turfgrass

◆ Sports and Urban Turfgrass Management, Alan Zuk

Research addressing low-maintenance turfgrass and landscape management in North Dakota is vitally important to homeowners and the green industry which includes 150 golf courses throughout the state.

Weed Science

◆ Perennial Weed Control, Rod Lym

The integrated leafy spurge control program has led to a 60% reduction of this invasive weed statewide with over \$14 million annually gained in grazing and recreational land use and a nearly \$1 million decrease in herbicide costs per year.

Employee Years of Service



Two Plant Sciences employees were honored as new members of the Quarter Century Club at a recognition dinner in May.



Ted Helms



Allen Peckrul

Years of Service

5 Years

Jesse Underdahl

Kristin Whitney

Snigdharani (Reena) Dash

10 Years

Shauna Pederson Dubuque

30 Years

Albert (Jody) VanderWal

35 Years

Larry Chaput

Grant Awards

Plant Sciences faculty are active in pursuing grants for project funding and support. Below is a snapshot of grant awards in 2011.

- ◆ 107 grants were awarded
- ◆ 16 faculty received over \$100,000 in grants
- ◆ Over \$7 million in total grants were awarded
- ◆ Over \$1 million was awarded from the ND Wheat Commission
- ◆ Over \$800,000 was awarded from the U.S. Wheat & Barley Scab Initiative
- ◆ Over \$300,000 was awarded from the ND Soybean Council
- ◆ Over \$250,000 was awarded from the ND Corn Council
- ◆ \$150,000 was awarded from the North Central Sun Grant Center Competitive Grants Program
- ◆ Over \$100,000 was awarded from the ND Department of Agriculture
- ◆ Over \$100,000 was awarded from the Northern Pulse Growers Association



Field Days 2012



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

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



Faculty and Staff Earn Recognitions

◆ **Rod Lym** was chosen **President-elect of Weed Science Society of America** for the 2011-12 term. He was elected at the WSSA annual meeting in Portland, OR, in February 2011.

◆ **Senay Simsek** received the **NC-213 Andersons Cereals and Oilseeds 2011 Early-in-Career Award of Excellence** during the Multistate Project NC-213 annual meeting in February. The award recognizes “individuals early in their careers whose work has significantly contributed to improvements in science, innovation, technology implementation, policy formation, and/or education related to quality of cereals and oilseeds from processing to consumption, and who show outstanding promise of continuing those contributions into the future.” NC-213 The U.S. Quality Grains Research Consortium includes engineers, scientists and economists from leading U.S. land grant universities and government research centers that investigate and disseminate technical knowledge concerning the marketing and delivery of quality grains and bioprocess co-products. (Source: NC-213)



◆ **Shauna Pederson Dubuque**, Research Specialist in Weed Molecular Biology, was elected to serve on the **NDSU Staff Senate** for a two-year term.

◆ **Ken Grafton, Phil McClean, Bill Wilson, and Sharhryar Kianian** of NDSU Plant Sciences and the Center of Excellence for AgBiotechnology are representing NDSU in a partnership with the Department of Primary Industries of Australia to “develop improved crop varieties, [focusing] on cereals, grains and legumes research to deliver plant varieties with high productivity and adaptation to new climates in both hemispheres.” According to Phil McClean, the groups will “work together by sharing resources and expertise in the areas of genetics, molecular genetics and gene discovery.” Ken Grafton says, “North Dakota producers will benefit by having access to modern technologies that will accelerate the development of improved cultivars.” A student exchange program is an additional component of the partnership. (Source: *NDSU Ag Communication, Rich Mattern, Editor*)

◆ **Marcelo Carena** was invited as plenary speaker at the **Brazilian Plant Breeding Congress** in August. He spoke on “The Need of Germplasm Enhancement for Unique Cultivar Development in the 21st Century: Exploitation of Unique Environments for Adaptation to Climate Change.” More than a thousand plant breeders, including professionals and graduate students, were in attendance.



◆ **Kirk Howatt** was named **Educator of the Year** by the Mid America Croplife Association. He was presented the award by Dave Flakne, MACA President, at a ceremony in Bloomington, MN, in September. In the MACA press release, one of the individuals who nominated Kirk was quoted as saying, “[Kirk is] fully engaged in education so that students learn about crop protection products and their benefits and [I am] very impressed with his work the last 10 years.”



Photo by Eric Sfiligoj, CropLife Media Group

◆ Serving as president of the Association for the Advancement of Industrial Crops (AAIC), **Burton Johnson** hosted the 23rd Annual AAIC Meeting in Fargo on Sept. 11-14, 2011.

◆ **Kevin McPhee**, visiting scientist **Pushparajah Thavarajah**, and Dil Thavarajah, assistant professor in Food Systems, were featured in a Minnesota Public Radio article regarding their research on increasing nutritional value in pulse crops for developing nations. View the entire article at <http://minnesota.publicradio.org/display/web/2011/09/13/research-goes-into-boosting-nutritional-value-of-pulse-crops-for-developing-countries>

◆ **Phil McClean** was awarded the **Frazier-Zaumeier Distinguished Lectureship** at the biennial Bean Improvement Cooperative (BIC) meeting in San Juan, PR, in November. The lectureship honors a distinguished colleague who has contributed significantly to bean research. The award recipient is invited to deliver the keynote opening address at the biennial BIC meeting, as well as provide a review for publication in the BIC report and on the BIC website. The lectureship is named for BIC founding members Dr. ‘Tex’ Frazier, bean breeder, and Dr. Bill Zaumeier, bean pathologist. (Source: BIC)

◆ **Ken Grafton** received the **Meritorious Service Award** at the Bean Improvement Cooperative meeting in San Juan, PR, in November. The award acknowledges “outstanding contributions made by many of its members to bean research and education. These recipients have devoted many years of their illustrious careers to bean research and education, and have consistently provided outstanding service to our organization.” (Source: BIC)

◆ **Harlene Hatterman-Valenti** was recognized as a **Fellow of the North Central Weed Science Society** (NCWSS) during their annual meeting in Milwaukee, WI, in December. According to NCWSS, a Fellow is “the highest honor that the society can confer to an individual member. Only individuals who have made outstanding contributions to weed science (no more



Photo by Glenn Nice

than 0.5% of the membership) receive this award each year. Fellows are considered life-time members of the North Central Weed Science Society." Harlene joins the ranks of NDSU Plant Sciences professors emeriti John Nalewaja, Cal Messersmith, and Alan Dexter who also earned this distinction in years past.

◆ Plant Sciences was well represented during the **20th Annual Agriculture and University Extension Faculty/Staff Awards** program in December.

Award nominees from Plant Sciences included Senay Simsek, Alan Zuk, Edward Deckard, Kirk Howatt, Joel Ransom, Vicki Magnusson, Eileen Buringrud, and Stanley Stancyk. Of this group, three were selected to receive awards. **Senay Simsek** received the **Larson/Yaggie Excellence in Research Award**. **Kirk Howatt** received the **William J. and Angelyn A. Austin Advising Award**. **Stanley Stancyk** received the **Rick and Jody Burgum Staff Award**. Dr. Ken Grafton, Vice President for Agricultural Affairs, Dean of the College of Agriculture, Food Systems, and Natural Resources, and Director of the North Dakota Agricultural Experiment Station, and Duane Hauck, Director of the NDSU Extension Service, presented the awards. Congratulations to the award winners!



Photo by NDSU Ag Communication



Photo by NDSU Ag Communication



◆ Potato breeder **Susie Thompson** received the **National Potato Council's Meritorious Service Award** during the Council's annual meeting in Orlando, FL, in January 2012. According to the Northern Plains Potato Growers Association (NPPGA), "Dr. Thompson is considered one of the top potato breeders in the country. In just the past six years, Dr. Thompson has released four new commercial varieties....including the first frozen processing variety to be released from NDSU. [She] is also a key collaborator in the North Central Breeding and Genetics group....and a key contributor to the National Chip Processing Trials and the National Fry Processing Trials supported by the US Potato Board."



Photo by Ted Kreis

(Source: NPPGA News http://www.nppga.org/potato_news/index.php)

◆ Dry bean breeder **Juan Osorno** was featured on the cover of Northarvest Bean Grower (winter 2012 issue), the publication of Northarvest Bean Growers Association. Juan received one of 10 USDA Specialty Crop Block Grants awarded in North Dakota aimed at promoting the development of specialty crops. He is working to incorporate the slow darkening gene into pinto bean varieties, allowing the beans to better withstand conditions which contribute to a darker color. View the publication online at <http://www.northarvestbean.org/>.



Dale E. Herman Research Arboretum

Article and photos by Todd West



The NDSU Horticulture Research Field Day in August was a particularly special one this year. Participants had the opportunity to tour the horticulture research arboretum one last time with Professor Emeritus Dale E. Herman. In addition, the day's events included a special treat, a dedicatory ceremony to officially name the arboretum the Dale E. Herman Research Arboretum. The 35-acre arboretum near Absaraka, ND, is the largest collection of woody plants in the Northern Great Plains. On hand for the ceremony was Dr. Ken Grafton, VP of Agricultural Affairs, Dean of the College of Agriculture, Food Systems, and Natural Resources, and Director of the North Dakota Agricultural Experiment Station, and Dr. Richard Horsley, Dept. of Plant Sciences Head. Dale was honored to have the research arboretum named after him and thanked everyone for attending. He gave a special thanks to his wife, Ruth, for her support of his research and plant collecting over the years.



Graduate Students Earn Recognitions



- ◆ Cereal Science PhD candidate **Harkanwal Sandhu** and his advisor Frank Manthey, along with Senay Simsek from Plant Sciences and Jae-Bom Ohm from USDA-ARS Wheat Quality Laboratory co-authored a paper entitled “Comparison between potassium bromate and ozone as flour oxidants in breadmaking,” which was published in the periodical *Cereal Chemistry*. Their paper was the *Cereal Chemistry* Editor’s Pick and the second most accessed paper from *Cereal Chemistry Online* in February.
- ◆ MS student **Erin Burns** was awarded a \$10,000 graduate student grant from the North Central Region Sustainable Agriculture Research and Education Program for her project, “Integration of Biological Control and Native Cover Crops for Canada Thistle Control.” Erin’s co-advisers are Greta Gramig, Plant Sciences, and Deirdre Prischmann-Voldseth, Entomology.
- ◆ Three NDSU Plant Sciences graduate students won awards for their presentations at the 2011 Graduate Student Symposium in Saskatoon, SK, in March. In the Plant Breeding and Genetics category, MS student **Collin Lamkey** won first place for his presentation, “Marker assisted selection versus phenotypic selection for tolerance to iron deficiency chlorosis in soybean,” and PhD student **Filippo Bassi** took second place for his presentation, “QTL analysis on wheat radiation mutants: chasing hybrid wheat.” In the Agronomy, Ecology and Biochemistry category, MS student **Grant Mehring** placed second with his presentation, “Weed control with cover crops in irrigated potato production.”
- ◆ Two graduate students won awards at the AAIC Conference held in Fargo in September. MS Horticulture student **Naa Korkoi Ardayfio** received Best Medicinal and Nutraceuticals Division Paper Presentation 2011 for her paper titled “Juneberry cultivar evaluation in North Dakota.” Naa’s advisor is Harlene Hatterman-Valenti. MS student **Kuhu Sahu** received Best General Crops Division Poster Presentation 2011 for her poster titled “Adaptation screening for new pulses in North Dakota.” Kuhu’s advisor is Burton Johnson.
- ◆ MS student **Andre Luis Rodrigues Miranda** won first place for his poster presentation titled “Phenotypic Evaluation of Ascochyta Blight Resistance in Pea” at the North American Pulse Improvement Association biannual meeting in November, in San Juan, PR. Andre’s advisor is Kevin McPhee.



2011 Graduates

PhD

Nilwala Shyamen Abeysekara (*Genetics, Faris*)

Kornelija Matkovic (*Cereal Science, Manthey*)

Harkanwal Preet Singh Sandhu (*Cereal Science, Manthey*)

Junyun Yang (*Plant Sciences, Carena*)

MS

Jack Brodshaug (*Plant Sciences, Kandel*)

David Carruth (*Plant Sciences, Zollinger*)

Shireen Chikara (*Genetics, McClean*)

Mizuki Funada (*Plant Sciences, Helms*)

Yang Gao (*Plant Sciences, D. Li*)

Abhay Gupta (*Cereal Science, Khan*)

Collin Lamkey (*Plant Sciences, Helms*)

Haiyan Lu (*Cereal Science, Simsek*)

Eder Mantovani (*Plant Sciences, Mergoum*)

John Stenger (*Plant Sciences, Hatterman-Valenti*)

Evan Twedt (*Plant Sciences, Ransom*)

Sheng Wang (*Plant Sciences, Zhang*)



Summer Interns



University of Puerto Rico Mayagüez Summer Research Fellowship Interns

Julianna Franceschi, Puerto Rico (*Plant Pathology, Acevedo*)
Alfredo Aponte, Puerto Rico (*Plant Sciences, Berti*)
Lisi Gonzalez, Puerto Rico (*Plant Sciences, McPhee*)



Plant Sciences Undergraduate Summer Research Fellowship Intern

Sam DeMaris, United States (*Plant Sciences, West*)

Scholarships

Congratulations to the 2011-12 scholarship recipients and a wholehearted “thank you” to the scholarship sponsors! Scholarship awards this year were presented to 42 undergraduate and 21 graduate students. Total dollars awarded were \$51,075 (\$31,895 to horticulture and crop and weed sciences undergraduates, and \$19,180 to graduate students). The scholarships were sponsored by 44 individuals or organizations. We always welcome and appreciate new scholarship sponsors. Please contact our office if you would like more information.

CWS Senior Earns National Recognition

Crop and Weed Sciences senior (2010-11) **Amanda Schoch** was one of a national group of 36 students recognized by the **2011 National Student Recognition Program**, an award given by the undergraduate program of ASA-CSSA-SSSA. Outstanding seniors are selected for the award based on “scholarship, leadership and participation.” (*CSA News, April 2011*) Amanda graduated Summa Cum Laude in May 2011 and began her graduate studies in Plant Sciences at NDSU in the summer.

Honor Society Inductees

The NDSU chapter of the Honor Society of Phi Kappa Phi held their semi-annual new member initiation ceremony in November. Among the new members were Plant Sciences graduate students **Erin Burns**, **Samira Mafi Moghaddam** and **Mona Mazaheri**, and undergraduate crop and weed sciences majors **Travis Evenson** and **Nathan Haugrud**. Inductees are presented with a personalized certificate and the official Phi Kappa Phi pin symbolizing 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. [Their] 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 offered 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: <http://www.ndsu.nodak.edu/ndsu/pkp/> and <http://www.phikappaphi.org/>)

Alumni Earn Recognitions

Agronomy alumnus **John Soper** (PhD 1987) was named the **2011 Distinguished Alumnus by NDSU College of Agriculture, Food Systems, and Natural Resources** for his “prominent role in Pioneer Hi-Bred’s success.” Soper started out at Pioneer Hi-Bred as a soybean breeder and is now vice president of crop genetics research and development. (Source: *NDSU College of Ag newsletter*)

Dr. Carlos Urrea (former PhD student with Rich Horsley, now the Dry Bean breeder at University of Nebraska), received the **Distinguished Achievement Award** at the Bean Improvement Cooperative meeting in San Juan, PR, in November.

We invite NDSU Agronomy/Plant Sciences/Horticulture graduate alumni to send us your news of awards, honors, recognitions, and achievements to include in future issues of the *Blizzard Watch*.

Department Social Events

Although the members of the Department of Plant Sciences are focused people who work hard, we also find time to enjoy getting together. And as you will see, these times are almost always—ok, forget *almost*, these times are *always*—focused on FOOD!

Chili Feed

A cold, wintry day in February brought out a good crowd for this annual event. There were 19 pots of different chili recipes to sample for the 91 individuals who attended. A delicious assortment of bars, cakes and corn bread were also on hand to munch on after feasting on chili. By all accounts this was the largest crowd to attend this popular event.



Zoo Picnic

The fall picnic was held at the Red River Zoo in August. It was a departmental family event and 65 people attended, even some grandchildren. There was a wide variety of fantastic dishes to try, and those attending even had a chance to participate in a cucumber tasting trial conducted by Jeff Stachler. People had a chance to eat, visit with other families, ride the carousel, and tour the zoo. It was a beautiful evening to tour the zoo and the time went by too quickly.



Harvest Festival

94 people attended this November event. A baked potato bar was set up offering four varieties of potatoes from Susie Thompson's project, and a wide range of toppings were available to suit all palates, from butter, sour cream, broccoli, shredded cheese, onion, and bacon, to salsa, chili, taco meat, grilled chicken, broccoli cheese sauce, and jalapeno peppers, to name a few. A nice spread of desserts topped it all off.



Christmas Sweets Bonanza

Favorite Christmas treats were brought to share, with the option to enter one's dessert in the Holiday Potluck Challenge. The contest included desserts from individuals and teams by project, office, suite, or building. The daring judges were Dale Herman, Cal Messersmith, Alan Dexter, and Andrzej Noyszewski. Prizes were awarded for Best Dessert, Most Exotic Dessert, and Most Original Dessert. People enjoyed a break from the holiday hustle and bustle and the chance to visit and taste foods from many different areas of the world. The sugar-high is still wearing off.



Event recaps provided by the Social Committee and Chili Feed Committee; special thanks to Eileen Buringrud and Kathy Christianson. Thanks also to Brenda Deckard and Lisa Johnson for sharing their zoo picnic photos!

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)
W. David Dai	Associate Professor (woody plant physiology, biotechnology)
Edward L. Deckard	Professor (crop physiology)
Elias M. Elias	Professor (durum wheat breeding)
Farhad Ghavami	Research Assistant Professor (wheat genetics, nuclear-cytoplasmic interactions)
Greta Gramig	Assistant Professor (weed science)
James J. Hammond	Professor (flax and crambe breeding, biometrics, computer programming)
Harlene Hatterman-Valenti	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)
Penny M. A. Kianian	Assistant Professor of Practice (genetics)
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	Professor (HRSW breeding, genetics)
Juan M. Osorno	Assistant Professor (dry edible bean breeding)
Mukhlesur Rahman	Research Assistant Professor (canola breeding, genetics)
Joel K. Ransom	Professor (extension agronomist, small grains)
Paul Schwarz	Professor (malting barley quality)
Senay Simsek	Assistant Professor (HRS wheat end quality)
Ronald C. Smith	Professor (extension horticulture and turfgrass)
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
Arthur A. Boe
Harold Z. Cross
Alan G. Dexter
Murray E. Duysen
Jerry D. Franckowiak
Richard C. Frohberg
Dale E. Herman
Neal S. Holland

H. Roald Lund
Shivcharan S. Maan
Calvin G. Messersmith
Dwain W. Meyer
John D. Nalewaja
Donald C. Nelson
LeRoy A. Spilde
Dean A. Whited

Adjunct Faculty (*USDA)

James V. Anderson* (plant biochemistry)
Larry G. Campbell* (sugarbeet genetics)
Patrick M. Carr (sustainable agriculture)
Shiaoman Chao* (genomics)
Wun S. Chao* (perennial weeds)
Lynn S. Dahleen* (barley genetics, biotechnology)
Doug Doehlert* (oat germplasm enhancement)
Justin Faris* (cereal crops)
Michael E. Foley* (weed biology)
Karen L. Fugate* (sugarbeet physiology)
Yong Qiang Gu* (wheat germplasm enhancement)
David P. Horvath* (perennial weed physiology)

Khwaja Hossain (wheat germplasm enhancement)
Brent Hulke* (sunflower breeding and genetics)
Chao C. Jan* (sunflower cytogenetics)
Prem P. Jauhar* (wheat cytogenetics)
Brian Jenks (weed science)
Ed C. Lulai* (potato physiology)
Lili Qi* (wheat cytogenetics)
Gerald J. Seiler* (sunflower and sugarbeet germplasm)
Joseph R. Sowokinos* (potato physiology)
Jeffrey C. Suttle* (potato physiology)
Steven Xu* (HRSW development)

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)

FAO, Rome, Italy

Elcio P. Guimaraes (cereal plant breeding)

ICARDA, Aleppo, Syria

Flavio Capettini (barley breeding)

University of Minnesota-Crookston

Jochum Wiersma (small grains)

Postdoctoral Research Fellows and Visiting Scientists

Postdocs

Xuelin Fu (Jan, sunflower cytogenetics)
Shalu Jain (McPhee, pulse crops)
Jawahar Jyoti (Horsley, barley breeding)
Ajay Kumar (Kianian, wheat germplasm enhancement)
Zhao Liu (Jan, sunflower cytogenetics)
Sujan Mamidi (McClean, oat breeding)
Monika Michalak (Kianian, wheat germ. enhancement)
Robert Sabba (Thompson, potato germ. evaluation)

Kristin Simons (Kianian, wheat germ. enhancement)
Zahirul Talukder (Hulke, sunflower breeding/genetics)
Fang Wei (Jan, sunflower cytogenetics)

Visiting Scientists

Gang Feng (Xu, Northern Crop Science Lab)
Ping He (W. Chao, Northern Crop Science Lab)
Yuquan Wang (S. Chao, Biosciences Research Lab)
Maolin Zhao (Xu, Northern Crop Science Lab)
Qi Zheng (Xu, Northern Crop Science Lab)

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)
Claudia Carter (durum and pasta quality)
Larry Chaput (woody plants)
Kathy Christianson (perennial weeds)
Mark Ciernia (weed control)
Reena Dash (durum and pasta quality)
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)
Bryce Farnsworth (potato breeding)
Sarah Gegner (dry bean 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)
Barb Laschkewitsch (vegetables and perennials)
Rian Lee (dry bean genetics)
Dan Liane (HRSW breeding and genetics)
Lenny Luecke (sugarbeet weed control)
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)
Richard Nilles (potato breeding)
Bob Nudell (forages)
Gloria Nygard (wheat quality)
DeLane Olsen (wheat quality)
Rachel Olson (wheat quality)
Allen Peckrul (wheat germplasm enhancement)
Paula Petersen (new crops)
Bree Reetz (dry bean genetics)
Ron Roach (weed control)
Gonzalo Rojas-Cifuentes (Asst. Director, Seedstocks)
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)
Mary Valenzuela (wheat quality)
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)

Office Staff

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Michelle Grant, Senior Accounting Specialist
Louise Heinz, Administrative Secretary
Lisa Johnson, Administrative Secretary
Tami Leith, Administrative Secretary
Laura Lutkemeier, Accounting Specialist
Lorin Miller, Accountant
Angela Scott, Grants Coordinator

Graduate Students

		<u>Advisor</u>			<u>Advisor</u>
Meliza Abeyratne	MS	Simsek	Mohamed Ibrahim	PhD	Cai
Wesam AbuHammad	PhD	Elias	Alberto Jimenez-Diaz	PhD	Schwarz
Andrew Aipperspach	MS	Hatterman-Valenti	Renata Jung	PhD	Horsley
Aman Anand	MS	Gramig	Tonette Laude	PhD	Carena
Robynn Anfinrud	MS	Berti	Magan Lewis	PhD	Horsley
Alfredo Aponte	PhD	Berti	Angela Linares	PhD	Osorno/Mergoum
Naa Korkoi Ardayfio	MS	Hatterman-Valenti	Guojia Ma	PhD	Cai
Md. Abdullah Al Bari	PhD	Carena	Te-ning Ma	MS	Cai
Filippo Bassi	PhD	S. Kianian	Justin Mack	MS	Zollinger
Nolan Berg	MS	D. Li	Samira Mafi Maghaddam	PhD	McClellan
Bradley Bisek	MS	Marais	Mona Mazaheri	PhD	S. Kianian
Ryan Burciaga	MS	S. Kianian	Grant Mehring	MS	Hatterman-Valenti
Erin Burns	MS	Gramig/Prischmann-Voldseth	Sonali Mehta	MS	Christoffers
Juan Calle-Bellido	PhD	Thompson	B-Mihiri Mendis	MS	Simsek
Craig Carlson	MS	West	Andre Luis R. Miranda	MS	McPhee
Matt Chaput	MS	Ransom	Sepehr Mohajeri Naraghi	PhD	Mergoum
Adam Chyle	MS	Deckard	Itai Mutukwa	PhD	Lee
Raphael Colbert	PhD	Osorno	Jared Peterson	MS	Hatterman-Valenti/Dai
Katie Conklin	MS	Lym	Seyed M. Pirseyedi	PhD	S. Kianian
David Cookman	MS	Marais	S. M. Hisam Al Rabbi	PhD	Mergoum
Ana Maria Correa-Morales	PhD	Horsley	Jose Rivera	MS	Horsley
Sintayehu Daba	PhD	Horsley	Adriana Rodriguez-Garcia	MS	Thompson
Elena De La Pena	PhD	Manthey	Irene Roman	MS	Thompson
Marina Dobrydina	MS	Manthey	Kuhu Sahu	MS	Johnson
Naiyuan Dong	PhD	Carena	Dulan Samarappuli	MS	Berti
Ronald Dorcinvil	PhD	McMullen	Amanda Schoch	MS	Ransom
Morgan Echeverry-Solarte	PhD	Mergoum	Jaidev Sehrawat	MS	Schwarz
Ahmed Eiftaih EIDoliefy	PhD	Mergoum	Santosh Sharma	MS	Carena
Danielle Fiebelkorn	MS	McPhee	Ali Soltani	PhD	S. Kianian
Andrew Fillmore	MS	Howatt	John Stenger	PhD	Hatterman-Valenti
Juan Francocoronado	MS	West	Alison Stone	MS	Hulke
Yang Gao	PhD	D. Li	Qun Sun	PhD	Xu
Kiran Ghising	PhD	Osorno	Behzod Tashtemirov	MS	McPhee
Gerado Gracia Gonzalez	PhD	Simsek	Oswaldo Teuber	PhD	Berti
Alicia Hall	MS	Howatt	Hongxia Wang	PhD	Dai
Jameson Hall	MS	Ransom	Megan Zadach	MS	McMullen
Whitney Harchenko	MS	Thompson	Qijun Zhang	PhD	Xu
Aaron Hoppe	MS	Kandel	Xianwen Zhu	PhD	Cai
Danqiong Huang	PhD	Dai			

Blizzard Watch to Go Paperless

In an effort to save printing and postage costs to mail the *Blizzard Watch*, we are progressing toward paperless publishing as much as possible. The 2011 *Blizzard Watch* is accessible in full color on our website: <http://www.ag.ndsu.nodak.edu/plantsci/newsletter/> where you will also find the archive of past issues. Those for whom we have an e-mail address will be sent this link. Those for whom we do not have an e-mail address will receive the newsletter by postal mail.

As we work toward this goal, **we need your help**. Please update your contact information for us and include your e-mail address. Use the form below or download the form at our website. When the next issue of the *Blizzard Watch* is published online, you will be notified by e-mail. We would like to hear from graduate alumni as well as former employees of the department. If you know of someone who should be or would like to be receiving the *Blizzard Watch*, please forward this information to them. We appreciate your help as we strive to be good stewards of our department's and our world's resources!

Blizzard Watch is online! Go to <http://www.ag.ndsu.nodak.edu/plantsci/newsletter/>

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We would like to hear what you are up to now and update your contact info so we can keep in touch. Please take a moment to fill out and mail or fax this form to our office, or go to our website to download the form. We look forward to hearing from you!

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Current Position/Title _____

Company/Organization _____

Department _____

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(check one) Home Work _____

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