

NDSU - Department of Plant Sciences

2006-2007

Blizzard Watch



**Belated
Merry Christmas
and/or Happy Holidays
and Happy New Year
to you and your loved ones
from the faculty, staff
and students in the
Department of Plant Sciences.**

Greetings to all of you from the faculty, staff and students in the Plant Sciences Department. I hope this report finds you and your families safe and in good health. We do appreciate all of the nice comments and emails that Edie and I receive from so many of you concerning the "Blizzard Watch". If any of you have questions about a topic concerning the department that is not covered in the Blizzard Watch, let me know.

As always, it is good to visit with, and see those of you who attended the North Dakota Blizzard Party at the ASA/CSSA/SSSA meetings in Indianapolis. I appreciate your interest and support of the department and NDSU. It is always a pleasure to see how well all of you are doing.

The 2006 growing season in North Dakota was, like all other growing seasons, unlike all others. With the exception of a wet October blizzard, which hit central and western North Dakota, the 2006 growing season was preceded by an unusually warm winter, including the warmest January on record. November through February, temperatures ranged from 5 to 9° above normal. In part, because of the early fall blizzard, subsoil moisture was plentiful except in south-central and southwest North Dakota. Because the soil was saturated in southeast North Dakota, rainfall and snow melt tended to run off instead of going down into the soil profile, resulting in flooding in the Red River Valley. In Fargo we had the third highest flood crest on record. Producers were able to get into the field in early April, however in many areas the field work was slowed by wet soils. Rains, sometimes in high amounts over a short period of time, fell in some of the dryer areas of the state. Very little moisture fell from May through July. Temperatures in May and June were just a little above normal. July temperatures were 5 to 7 degrees above normal in the dryer south-central part of the state and 2 to 3 degrees above normal in the wetter portions of the state. The high temperatures, coupled with high winds, were brutal at times. This year Dr. David Wittrock, Dean of the Graduate School, went with me to field days at Hettinger, Dickinson and Williston. When we stopped to put gas in our car at Richardson, it was 104-106°F. It felt like I was back in Arizona. The wind was so strong I could barely open the car door. So I knew I was in North Dakota. That evening while we were eating in Amidon with other NDSU faculty and students, at least three prairie fires occurred due to lightning strikes. The next day at Dickinson, someone asked if the previous day had set a new high for the day--not even close. In July 1936, the average high temperature approached 100°F for the whole month, with several days above 110°F.

The poorest crops were to the southeast and west of Bismarck. In many areas the small grains were just cut for hay. As you traveled toward the extreme southwest part of the state, the crops became gradually better with some very good crops around the Bowman area. It all depended on which areas received the scattered rains. In mid-August many parts of the state, including the areas that had drought, received strong rains. Unfortunately it occurred too late to help many of the crops. The rains also lowered average August temperatures to about normal. Rains continued along the South Dakota border and in northeast North Dakota until about the middle of September. In the majority of the state, conditions were good for harvesting.

The fall and winter thus far have been quite warm and dry. Each day the Fargo newspaper 'The Forum' compares the snowfall on comparable dates this year and 1997, the year we had about 130 inches. As of the 6th of February 2007, we have just under 10 inches. On that same date in 1997, we had 78.7 inches of snow. The last weeks of January and early February have had some cool temperatures with several lows in the minus 20°F range. Because of the lack of winter moisture, I am a little concerned about the soil moisture for next year's crops--time will tell. I gave up trying to predict North Dakota weather a long time ago.

Crops this year were very good when soil moisture was adequate. The dry, warm conditions, coupled with the earlier planting, were not conducive for many plant diseases including sclerotinia, wheat/barley scab (FHB), etc. As a result, yields were not reduced by diseases and crop quality was generally very high. I was one of many who, after seeing parts of the state hit by drought, thought that average crop yields would be low. I was wrong again and pleasantly surprised by the high average crop yields. This, along with strong crop prices, resulted in an overall good year for many of the state's crop producers.

Significant progress toward FHB resistance has been made in durum, hard spring wheats and barley, but we have a long way to go to solve this problem. Both the barley and durum breeding programs have disease screening nurseries in a part of China where FHB is epidemic each year. This location has proven to be an important site in the selection of lines having FHB resistance.

NDSU's HRSW, durum, and many other crop varieties continue to dominate respective crop acreages in North Dakota and Montana. At a recent variety release meeting 'Faller', a HRSW variety, was released. The Faller variety was named after Jim Faller, a long time technician in the HRSW breeding program. Although it has not performed as well in western North Dakota, Faller has about a nine bushel yield advantage over Glenn, a HRSW, when grown in eastern North Dakota. It has a little lower protein and test weight than Glenn, the industry standard, but still has good quality.



One roundup resistant (RG7008RR) and one conventional soybean variety (Sheyenne) were released by Dr. Ted Helms. They all have good yield, chlorosis resistance and a high level of phytophthora root rot resistance. The transgenic line will be marketed through Roughrider Genetics®, the marketing arm of NDSU inventions, varieties, etc., while Sheyenne will probably be allocated through the county crop improvement system.

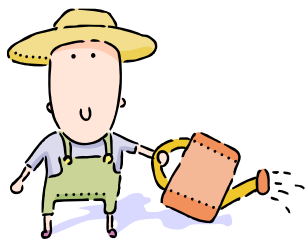


Usually, when we do not have enough seed of a variety to distribute to producers at the time of release, we delay the release announcement until July 1st. This allows field day attendees to see the new varieties even though they have not been made available to producers. The following year, the seed of the new varieties is made available through the county crop improvement association. This was the case with "Souris" Oat. In July of 2006 the NDSU Agricultural Experiment Station announced its release. This is another in the long line of excellent oat varieties released from Dr. Mike McMullen's breeding program. This white-hulled variety has consistently produced high yields and test weights. During several years of evaluations in North Dakota, Souris produced yields 8% and 2.3% greater than Morton and HiFi, respectively. Souris has a new, genetic resistance to prevalent races of crown rust. The source of the resistance is from a different species of oat. If Souris were to replace only ½ of the acreage of Morton, based on current prices, it would generate an additional \$1M in annual income to North Dakota producer sales. Much of the oat grown in the state is fed on the farm as grain or forage.

Always remember that although plant breeders are the project leaders in the development of a new variety or selection, the release of a variety is a collaborative effort. This effort includes several other scientists and staff in Plant Sciences, other departments on campus--especially Plant Pathology, the USDA, and, of course, the very important research extension centers throughout the state, which allow us to test the lines under a wide range of environments. The result of a new variety is a team effort by many, including North Dakota and Federal taxpayers, commodity groups and other interested parties.

Two superior winter hardy woody plants were named and introduced by Dr. Dale Herman and his research specialist, Larry Chaput. Spring Welcome™ Magnolia (*Magnolia x loebneri* 'Ruth') is a seedling selection with proven winter hardiness in USDA zone 3 for 17 years. The foliage is dark green, and plants may be grown single or multi-trunked. Flowers are pink in bud, open to clear white with 11-13 petals, and are about 3 - 4 ½ inches in diameter. This introduction could extend the range for planting magnolias 150 - 200 miles further north in the upper midwest. Northern Tribute™ River Birch (*Betula nigra* 'Dickinson') is a seedling selection from a 40-year-old, large tree found growing in western North Dakota. Compared to various seed sources of this species, this selection performs well in rather compacted, dry and alkaline soil conditions in USDA zone 3. The bark is ivory colored, becoming more uniformly tanish-brown with age. This selection exhibits superior adaptation to environmental stress in the Northern Plains. Commercial nursery production of these introductions has begun as well as production of two releases in 2005, Prairie Spirit™ Juniper and Prairie Statute™ Hybrid Oak. A U.S. plant patent was issued for *Syringa pekinensis* 'SunDak' and U.S. Trademark Registrations were granted for Copper Curls® Pekin Lilac, Prairie Expedition® American Elm and Prairie Reflection® Laurel Willow. The NDSU Research Foundation licensed numerous nurseries to commercially propagate NDSU woody plant introductions.

The Horticulture Research & Demonstration Gardens continue to be developed. This year quite a bit of landscaping was completed and the irrigation systems were installed. Both the annual and perennial gardens were transferred to the new site, and almost all of the irises donated by Arthur Jensen have been planted. We will have a dedication of the iris garden sometime this year.



This year we had one faculty resignation. Dr. George Kegode, a weed scientist, left NDSU and took a position at NW Missouri State. He will have teaching responsibility and conduct research in new and emerging crops.



Dr. Jerry Franckowiak

We have had two faculty retirements with two more taking place later this spring. Dr. Jerry Franckowiak, our two-rowed barley breeder, retired and moved to Queensland, Australia, where he will lead a large barley breeding program. As I understand it, the program is several

times larger than the project he led at NDSU. Also retiring this year was Roger Genoch, Dr. Franckowiak's long-time research technician. Roger's state funded technician slot will be transferred to Dr. Mike Christoffers, who works in weed genetics. His research specialist, Shauna Pederson, is currently funded by grant funds.



Roger Genoch

Jerry Franckowiak was one of the foremost barley genetics experts in the world. He had numerous publications per year dealing with barley genetics. As a plant breeder he released numerous two-rowed barley varieties including 'Stark', 'Logan', 'Bowman', 'Rawson' and 'Conlon'. Rawson, an extremely large kernalled two-rowed variety, is drawing interest as a starch crop for ethanol production. Conlon is the only two-rowed NDSU barley currently accepted by the malting and brewing industry. Another variety, 'Pinnacle', will be released from his breeding program this coming summer. Pinnacle has very good potential for acceptance by the malting and brewing industry.

I transferred responsibility for the two-rowed barley breeding project to Dr. Richard Horsley, who also leads the six-rowed barley breeding project. I am using the position Dr. Franckowiak vacated to hire a turf scientist. We have a turf program of 41 students and have only one full time and one part time faculty positions. We are currently searching for a faculty member in the area of turf physiology. Dr. Abbas Lafta, a research specialist in the plant breeding project, will be transferred to the turf position as a research specialist.



Dr. Duane Berglund

Dr. Duane Berglund, our long time extension agronomist, retired on Dec. 31st. Duane was one of the best known NDSU personnel in the state. For many of our producers, he represented all of NDSU. Duane's extension responsibilities were with soybean and all other broad leaved crops, except alfalfa. With

his broad range of experience and years working in North Dakota, it was difficult to come up with a problem or situation in which he could not find a solution. I will especially miss him because he was one of the people in the department that I bounced ideas off or would go to for advice when I had a problem. Duane's experience, like that of Dr. Frohberg, Dr. Helm before him, and all the other retirees, was a tremendous information and idea resource for me.



Dr. Alan Dexter

Dr. Alan Dexter, extension sugarbeet specialist, who has a joint appointment between the University of Minnesota and NDSU, will retire the end of March. Dr. Dexter is an exceptional sugarbeet weed researcher and extension specialist. I often refer to him as the "Sugarbeet God." Never in my career have I seen anyone that had the complete trust of both the producers and the industry like Alan did. Much of his research, like the micro rate concept, saved our producers millions of dollars in herbicide costs and at the same time reduced potential environmental problems. Much of his research completely changed the methods of weed control in sugarbeets in Minnesota and North Dakota. I was always amazed, whenever he requested funds from the sugarbeet growers for his program, there was never, that I can recall, any discussion. They just gave him whatever funds he requested. He never betrayed their trust and returned their investment many times over. A research plot at the University of Minnesota Research/Extension Center at Crookston has been named in his honor.

Joining them in retirement this May will be Dr. Cal Messersmith, a weed scientist with a 60% teaching, 40% research appointment. Dr. Messersmith was one of the most respected teachers at NDSU and, like Dr. Dexter, one of the most respected weed science researchers in the north-central Region and the U.S. Cal was an exceptional instructor who had a lot of vision in the area of teaching. He was always at the forefront of modifying his teaching styles and in making changes and adding new classes. About three years ago he decided the students needed a one credit class in weed identification. I was not very supportive of the class, because I always hated plant identification classes, and I thought why would students want to take a class like this? As happens more than I care to admit, I was wrong again. The class has been a tremendous success with rave reviews by the students. Cal and Dr. H.R. Lund, a former faculty member, were two of the first in the country to develop slide shows with tapes to train students in labs. This has now, of course, been superseded by computer programs.



Dr. Cal Messersmith

Duane Preston, an extension potato specialist with a split appointment between NDSU and the University of Minnesota, will also retire the end of June. Duane was located in East Grand Forks, MN, but his replacement will be housed at NDSU in the Department of Plant Sciences. A



Duane Preston

search is currently underway. I did not know Duane "Sarge" Preston as well as I did those that were in the department and that I worked with on a daily basis. I do know that, like Alan Dexter with the sugarbeet industry, in the eyes of the potato growers and associated potato industries of Minnesota and North Dakota, Duane was "The Man." He was the person that producers, and all others associated with the industry, went to when they needed help. Whenever I attended any of his presentations or visited with him, the concerns of the potato industry were of the utmost importance. He is very well known nationally and internationally and was a wonderful representative of NDSU, the University of Minnesota, and MN and ND potato industries.

Dr. Jerry Miller, a graduate of and an adjunct faculty member in our department, and a research geneticist with the USDA/ARS Northern Crops Science Lab, retired January 3, 2007. Jerry and his long-time technician, Dale Rehder, were a great team that made tremendous contributions to the sunflower industry. Most notable were NuSun[®], a monounsaturated mid-oleic oil, and Clearfield[®], a non-transgenic sunflower resistant to the herbicide Pursuit. Most recently he released a genetic material having resistance to sclerotinia, a very serious disease in sunflower.



Jerry Miller and Dale Rehder

Jerry was known nationally and internationally for his contributions to sunflower science. He was a very important and close member of our department faculty and will be missed by all of us, the sunflower producers, and industry he so ably served.

Wow--talk about some real giants to replace. Cal Messersmith, Duane Berglund, Duane Preston, Jerry Franckowiak, Alan Dexter, and Jerry Miller can be described as solid, dependable, honest, hard working and professional. All of the retirees have had positive professional careers that they can look back on with pride and satisfaction. I am very honored to have had the opportunity to work with them and be their colleague.

I am using Dr. Kegode's vacant position to search for Cal Messersmith's replacement, which will have a 40% teaching and 60% research appointment, which is different than Cal's. We need to hire someone as soon as possible so they can be ready to teach fall semester. I hope to use Cal's vacant position to hire another weed scientist next fall. Dr. Ed Deckard's appointment will change to a 100% teaching appointment. Ed's AES supported technician, Pete Gregoire, will be transferred to work with Cal's replacement. Confused? So am I. Sometimes I feel like I need a score card. It is like the Abbott & Costello skit of Who's on First, What's on Second and I Don't Know's on Third.

We hired two new faculty who began work in late January. Dr. Juan Osorno, a graduate of our department, became our new dry edible bean breeder, replacing Dr. Ken Grafton. Juan received his B.S. in Colombia and his M.S. at the University of Puerto Rico-Mayaguez (UPRM). He also worked for four years on beans at CIAT. Dr. Senay Simsek received her B.S. and M.S. degrees from a university in her native



Dr. Juan Osorno



Dr. Senay Simsek

Turkey and is a recent graduate from Purdue University. Senay will work on HRSW quality. She replaced Dr. Monisha Chakraborty, who resigned last year. They are both fine additions to our department and I look forward very much to having them as faculty members. Along with

these two new faculty, the new turf scientist, Drs. Berglund, Messersmith and Dexter replacements, and Duane Preston's retirement, the entire makeup of our department will change.

Promotions in the department include Dr. Richard Zollinger to professor and Dr. Marcelo Carena and Dr. Kirk Howatt to associate professor with tenure.

Congratulations!



On January 1, I began my 14th year as chair. My oh my, how time flies. I still enjoy the job very much and do not know what I would do if I retired. I hope to continue for a few more years. I am very fortunate to work with such fine faculty. I give much of that credit to Dr. Carter.

Dr. Rich Horsley, who continues as my assistant, has taken the lead on the NDSU-University of Puerto Rico-Mayaguez program. He also does the assessment for our graduate and undergraduate crop and weed sciences program and has occasionally taken my place at meetings. He, like Dr. Rod Lym who previously assisted me, is a tremendous help to me. I try hard not to overburden Rich, as I do not expect him to reduce his efforts in teaching or research. Dr. Harlene Hatterman-Valenti is also a terrific help as she does the assessment for horticulture and forestry.



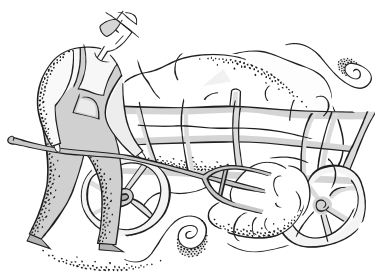
New postdocs are Dr. Kristene Gedye from New Zealand and Dr. Farhad Ghavami from Iran. They are working with Dr. Kianian on HRS and durum wheat germplasm enhancement.



Dr. Kristene Gedye



Dr. Farhad Ghavami



Richard Nilles



Jesse Underdahl

Richard Nilles was hired to replace Eric Auwarter in the potato breeding project. Hired by the HRSW program was Jesse Underdahl, an M.S. graduate from our department. Matt Abdallah was hired as a research specialist for the HRSW project. He recently graduated with a B.S. from Plant Sciences. His dad, Dr. Mounir Abdallah, was a friend of mine and worked as a sunflower breeder in the Fargo area. Karen Hertsgaard was hired to work as an information specialist for the Institute of Malting Barley. She works with Dr. Paul Schwarz and Dr. Rich Horsley.



Matt Abdallah

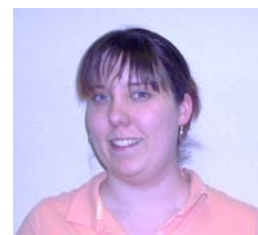


Karen Hertsgaard

Aaron Carlson, a recent Plant Sciences M.S. graduate, was hired as a technician in Dr. Dexter's sugarbeet project. Kristin Whitney, a recent Food Science graduate, was hired as a technician for Dr. Simsek. Kristin spent last summer and fall working with Truman Olson and Dr. Frank Manthey to learn about HRSW and durum wheat quality.



Aaron Carlson



Kristin Whitney



Dr. Mohammed Iddrisu was hired as a forest geneticist for Dr. Joe Zeleznik. Dr. Iddrisu, located in Mandan, will evaluate a number of different tree species from a closed USDA-ARS breeding program. The program, led by Dr. Cunningham, was closed when he retired several years ago.



In the last legislature the governor proposed the concept of partially state funded "Centers of Excellence". In addition to state funding, the center of excellence involves investment by private industry. A center of excellence for breeding and genetics valued at \$2M was approved. In addition to other funds, a large amount of canola germplasm to evaluate was provided to NDSU by our private industry research partners. Most of the genetic material is exotic in nature, having diverse types of agronomic characteristics, oil types and concentrations. Dr. Marcelo Melani has been hired as a visiting scientist to work on the canola breeding project. He is a recent graduate from our department where he was a student under Dr. Marcelo Carena in the corn breeding project. Dr. Melani's job is to evaluate the germplasm and incor-

porate to improve disease resistance and other desirable agronomic characters into the exotic material. The canola oil characteristics will be evaluated by Dr. Dennis Wiesenberg, formerly Agricultural Engineering.



Dr. Marcelo Melani



Among the support staff, Shelly Lura transferred to Human Resources. She was replaced by Sheila Watson. Sheila works with our graduate students to make sure they jump through all the hoops that are required. She is also responsible for handling the paperwork during their stay in our department and for new graduate student applications. Robin Aanstad, who worked in the office the past five years, submitted her resignation in January, and accepted a position with a Fargo law firm.

Marci Green resigned her research specialist position in the six-rowed barley project. Her husband, Dr. Jose Gonzalez, a graduate of our department, was hired in wheat genetics research at SDSU, Brookings, SD. Marci is also employed at SDSU.

Last year I mentioned that I, along with Drs. Horsley, Carena, and Kianian from our department; Dr. Ken Grafton, Dean and AES Director; and Dr. Wittrock, Dean of the Graduate School, went to Puerto Rico. During our visit we signed a cooperative agreement with the UPRM to train Ph.D. students, primarily in plant breeding, an area in which our department has a strong national and international reputation for excellence. The students selected will do their research and course work at both UPRM and at NDSU, with the degrees being awarded by NDSU. We also have established an intern program, which will allow us to screen prospective students and to help them improve their English skills. This past summer we had three UPRM interns work with the HRSW, barley and new crop/corn projects, respectively. In 2007, seven interns will spend the summer working with our faculty. In addition to this, we will have three students in our regular intern program.



Unfortunately I also have some bad news to report. This year we lost an adjunct faculty member, a technician and a potential student. Dr. Bob Henson, who was an adjunct professor and assistant agronomist at the Carrington Research Experiment Center, passed away in early July while attending a scientific conference in Paris. He left behind his wife Soraia, and their children, Bobby, a freshman at NDSU who works for Dr. Phil McClean, and Peter and Gabrielle who are still in high school.

In August, Jim Faller, a research specialist for the HRSW project, lost a long battle to cancer. Jim left behind his wife Bonnie, two sons--Jason and Adam, and two daughters, Erin and Carrie. Jason is a research technician in the barley project, Erin is a sophomore at NDSU, while Carrie is still in high school.

In late January, Luwbia Aranda from Bolivia was killed in a car accident in Puerto Rico. She was a student from UPRM and last summer had been an intern with Dr. Horsley. Luwbia had just graduated with a Master's Degree and had completed her application for a Ph.D. in our department. She was a very bright, pleasant young lady and had a lot of potential to make a difference in our world.

One of the perks NDSU has is ½ tuition waiver for spouses and for sons and daughters up to the age of 26. This is funded from indirect costs and includes all NDSU employees statewide. I did not know that the program also includes children of employees that have passed away. I have been employed at NDSU since 1964, when I started as a 23-year-old agronomist at the Williston Experiment Station with a fresh M.S. degree in hand. I have never, however, been more proud to be a part of the NDSU family than when I learned Bob Henson's three children and Jim Faller's two younger daughters would receive ½ tuition waivers to attend NDSU. It says an awful lot about NDSU and Dr. Chapman, our president, who initiated this program. NDSU is the only school in the state that provides this benefit.



Graduate student applications have leveled off. Our total number of Plant Sciences graduate students dropped off as several students transferred to a Genomics degree, which is a program that involves faculty from several departments including Plant Sciences. We continue to house and care for these students, but receive no credit. This is an issue that I need to work on to resolve.

New M.S. graduate students this year are: Colins Eno (Dr. Marcelo Carena); Lee Briese (Dr. Ted Helms); Michael Ostlie (Dr. Kirk Howatt); Mory Rugg (Dr. Bill Berzonsky); Peter Gilbertson (Dr. Burton Johnson); Scott Weinlaeder (Dr. Burton Johnson); and Wesam AbuHammad (Dr. Elias Elias).

New Ph.D. students who joined us this past year are: Andrzej Noyszewski (Dr. Shahryar Kianian); Guojia Ma (Dr. Xiwen Cai); Hongxia Wang (Dr. David Dai);

Jenny Bolivar (Dr. Richard Horsley); and Todd Wert (Dr. Susie Thompson).

An escalating problem for us is M.S. students who take jobs after completing their classes, but before finishing their thesis. There have been about 13 in the last three years. It is a real disappointment to the faculty and to me when this happens, since we supported the student and have nothing to show for our hard work and financial investment. In most instances, there were grants involved where the research results still need to be reported. Unfortunately, both the student and the individual who hired them are very short sighted. The students have made a poor decision that will come back to haunt them.

The NDSU Graduate School is currently involved in a national evaluation of the NDSU program. Dr. David Wittrock, Dean of the Graduate School, told me that Plant Sciences was the leading department in the number of Ph.D. graduates at NDSU. During the past five years we graduated 23 Ph.D. candidates. I believe the second highest number was in Chemistry. Since almost all assistantships are supported by faculty grants, this says a lot about our fine faculty and their commitment to the next generation of scientists. In the December 2006 NDSU commencement, four out of 26 Ph.D. students listed as completing their Ph.D. degrees were from Plant Sciences. WAY TO GO FACULTY & STUDENTS. We are proud of all of you.



Last year the department received approximately \$4,320,721 in awards and grants. Much of that goes to support graduate students and project operating costs.



Our graduates continue to do well as they leave Plant Sciences for their future careers. Chelsea Juricek was hired by the US Forest Service as a biologist in Dickinson, ND in a term position which ended in October. She has since moved to Garden City, Kansas and now works for the Kansas Department of Agriculture. She is monitoring water resources and hydrology in western Kansas, especially along the Arkansas River. Chelsea was a graduate student of Rod Lym's. Leslie Lubenow, an M.S. student with Dr. Burton Johnson, was the county agent in Steele County, but recently transferred to Pembina County. Dr. Luke Samuel, a Ph.D. student of Dr. Lym's, has taken a job with Monsanto. Dr. Rebekah Oliver, a student of Dr. Xiwen Cai, has taken a position in genetic research at the USDA Station in Aberdeen, Idaho. Dr. Robert Gelin, who graduated from our department in Dr. Elias' durum breeding program, and then a post doc in the dry bean breeding program, is a new soybean breeder for Syngenta. Pioneer, Monsanto and Syngenta all have soybean breeding programs in the Fargo-Moorhead area. All three of the breeding programs are led by NDSU Plant Sciences graduates. Carrie Schumacher, an M.S. graduate student of Dr. Harlene Hatterman-Valenti, is the assistant county agent in Walsh County; Deborah Willard, an M.S. student with Dr. Harlene Hatterman-Valenti, will be a horticulturist with a Fargo landscaping firm; Ryan Casavan, an M.S. student with Dr. Ted Helms, is a District Sales Manager for Wensman Seed Co.; Gauri (Nazre) Chandwalker, an M.S. student with Dr. Mike Christoffers, is a Ph.D. student with Dr. Christoffers in the Genomics and Bioinformatics Program; William Werk, an M.S. student with Dr. Ted Helms, works as a crop insurance adjustor in the Minneapolis area; McDonald Jumbo, an M.S. student with Dr. Marcelo Carena, is working towards a Ph.D. in corn breeding and genetics at the University of Delaware; Ajay Jha, an M.S. student with Dr. Lynn Dahleen, is working on a Ph.D. in botany at Oklahoma State University; Eric Delahoyde, an M.S. student with Dr. Rich Zollinger, is employed at Larson Grain Company in Englevalle, ND as an agronomist; and Sung Eun (Theresa) Lee an M.S. student with Dr. Chiwon Lee, returned to Korea and is working in her family's landscape industry.

In March 2006, several graduate students from the Department of Plant Sciences attended the 22nd Graduate Student Symposium at the University of Manitoba, Canada. Rebekah Oliver received first place with her presentation "Relatives of Wheat: A Novel Source of Resistance to Fusarium Head Blight" and Emma Gamotin received second place with her presentation "Pyramiding Different Sources of Fusarium Head Blight Resistance into Spring Wheat" in the Agronomy and Pathology Session. In the Molecular Plant Breeding and Physiology Session, Vijaya Varanasi received second place. Congratulations to these bright young people! The next symposium will be held in March 2007 in Fargo and in Saskatoon, Saskatchewan in 2008.



Undergraduate numbers remain stable. Our new Sports and Urban Turfgrass Management Program has 41 students; Crop and Weed Sciences has 101 students, an increase of one from last year; and Horticulture has 45 students, which is four less than last year. The majority of our students continue to be from North Dakota and Minnesota, but we are seeing increasing numbers from surrounding states in the region. Almost 50% of our CWS undergraduate students are female, while in Horticulture female students outnumber the male students about two to one. Approximately 42% of our graduate students are female.

NDSU, the only Division I school in the state and the leading academic and research institution in North Dakota and one of the best in the Midwest, is an excellent school—both for graduate and undergraduate programs. If you know of a good prospective student, let me know and I will contact him/her. We have some really outstanding students and we take pride in the training they receive. There are always jobs for bright, well trained graduates with a good work ethic. At the Agronomy meeting held in Indianapolis in November, there were 150 jobs posted. Many of the available positions were in plant breeding, primarily for corn or soybeans. All of our students who attended the meeting had several job interviews.

As you know, each year I try to take the office staff on a one day outing. Guess what? We did not go anywhere this year. We could not find an open date when everyone could go. In addition, in the eyes of the office staff, it would be hard to find anything to top the winery we visited last year.



The North Central Weed Science Society Meetings were held in Milwaukee, WI in December. The past president is Dr. Stephen Miller, an NDSU graduate and now Dean and Director at the University of Wyoming. The current president, Dr. Adrian Moses, a Field Research and Development Specialist for Syngenta Crop Protection in Iowa, is also an NDSU Plant Sciences graduate. Many of our faculty and past graduates have served as president of this regional and national society. For many years we have had one of the premier weed science groups in the U.S. At the meeting in Milwaukee, a reception was held to honor Dr. Cal Messersmith and Dr. Al Dexter on their upcoming retirement. At that time a



Dr. Rich Zollinger

photo was taken of those weed scientists present who had a NDSU connection. At this same meeting, Dr. Zollinger received the Education Award for outstanding educational achievements in weed science in the North Central Region. We in the department are proud of all of you!

Dr. Stephen Miller, who I mentioned previously, will be honored in April as the recipient of the 2007 CAFSNR Distinguished Alumni Award.



On February 2nd at the Manitoba Horticultural Association (MHA) convention in Dauphin, Manitoba, Dale Herman was honored with the MHA Stevenson Commemorative Award. The award honors individuals who have made outstanding contributions to horticulture. Dale has been directly involved in the introduction of 33 woody plants for commercial production and landscape use.



Dr. Dale Herman

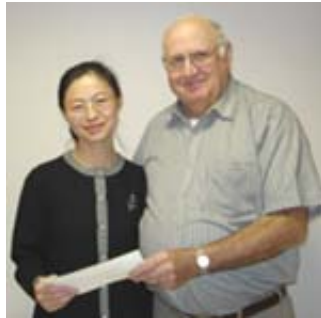
In early March Dr. L. R. Waldron will be inducted into the North Dakota Agricultural Hall of Fame at the Valley City Winter Show. He joins Drs. Jack Carter, Glenn Smith, Richard Froberg and Roald Lund, agronomists and members of our department, who are in the Hall of Fame. Dr. Waldron was the first HRSW breeder for the North Dakota Agricultural College (1919-1947). None of us in the department, except perhaps Dr. Carter, knew Dr. Waldron.

CONGRATULATIONS to Dr. Alan Dexter on receiving the Savitsky Award from the American Society of Sugar Beet Technologists at their 34th annual meeting in Salt Lake City. This very prestigious award is only given out periodically to individuals who have made significant contributions to the sugar beet industry. That certainly describes Dr. Dexter, whose research and extension efforts have had a significant impact on the regional and U.S. sugar beet industry. Most notable was his micro rate herbicide applications, where several light herbicide applications over time have been shown to be more beneficial than recommended higher rates. The technique saved sugar beet producers in North Dakota and Minnesota approximately \$20 per acre, or approximately \$38M annually in the region. The concept, which has been accepted nationally with some variations, reduces costs to producers. And, since fewer herbicides are applied, is more environmentally friendly.



Dr. Alan Dexter receiving the Savitsky Award

Xinrong Dong, an M.S. student working with Dr. Paul Schwarz, was the winner of a \$2500 American Society of Brewing Chemists (ASBC) Foundation Scholarship. The Graduate Scholarship in brewing and malting science is funded by Anheuser-Busch, Inc. The goal of the ASBC Foundation is to provide financial support and professional encouragement to achieving students in the field of brewing science. Congratulations Xinrong! You are an outstanding student.



Xinrong Dong with Dr. Schneiter



In May, twenty-nine NDSU employees with 25 or more years of service were inducted into the Quarter Century Club. Two of the inductees were from Plant Sciences: John (Lenny) Luecke, who works with Dr. Al Dexter in the sugarbeet weed control project, and Albert (Jody) Vander Wal, who works with Dr. Juan Osorno in the dry bean breeding program.

In August, Dr. Duane Berglund received a distinguished service award from the National Association of County Agricultural Agents. The award is presented to the top 2% of county agents from each state with more than 10 years of service in the Extension Service. The selection is made by the recipient's county agent peers in that state and endorsed by the state Extension Service Director. Duane worked with the Winter Show board of directors for many years and will be honored at the North Dakota Winter Show.

At the end of July, several students from Plant Sciences attended the North Central Collegiate Weed Science Competition in York, NE. Sara Krippner, an M.S. student with Dr. Kirk Howatt, won the Individual Sprayer Calibration portion of the contest.

Barb Laschkewitsch, a research specialist in Plant Sciences, was selected as a recipient of the "2006 Prairie Garden Award for Excellence." Prairie Garden is an annual gardening magazine devoted to horticulture in western Canada. The award is given to an individual or group making a significant contribution to the advancement and/or promotion of horticulture on the Northern Great Plains. Barb was recognized for her efforts as lead horticulturalist for NDSU's new horticultural research and demonstration gardens, her floral design classes, and presentations to garden groups visiting campus and across the state. I have the good fortune to serve as her supervisor. She is an outstanding young lady.



Barb Laschkewitsch

This past summer, Dr. Xiwen Cai was a recipient of the 2006 Advanced Undergraduate Research Award (AURA) by the North Dakota Experimental Program to Stimulate Competitive Research (EPSCoR). AURA provides undergraduate recipients the opportunity to participate in 10 weeks of faculty-mentored research experience.



Dr. Xiwen Cai

The NDSU Development Foundation recognized the recipients of 2006 grants and awards during the ninth annual Celebration of Faculty Excellence held May 4th. Honored from the College of Agriculture, Food Systems and Natural Resources in the Department of Plant Sciences was Dr. Burton Johnson.



Dr. Burton Johnson



Kiran Oberoi Seth

Nine NDSU students are the recipients of North Dakota Experimental Program to Stimulate Competitive Research (ND EPSCoR) doctoral dissertation awards. The program is designed to increase the completion rate of doctoral students enrolled in science, engineering and mathematics disciplines at NDSU and the University of North Dakota, and to increase the number of competitive proposals submitted to the National Science Foundation. Kirian Oberoi Seth, a graduate student in Plant Sciences was announced as one of the award winners. Kirian's faculty adviser is Dr. Shahryar Kianian.

Dr. Berglund and Dr. Dexter were awarded the Distinguished Service Award to Agriculture and Valerie Eitreim, a senior in horticulture who breeds orchids as a hobby, received its Outstanding Undergraduate Award. Valerie plans to attend Texas A&M to study flower breeding.



Valerie Eitreim

At the Western Society of Weed Science (WSWS) meetings, Luke Samuel, a Ph.D. student, won first place in the student paper contest. His paper explained the results from his work at Theodore Roosevelt National Park. Also, Dr. Rod Lym was awarded the Outstanding Weed Scientist for WSWS.



Two years ago a Gamma Sigma Delta Chapter was established at NDSU. Gamma Sigma Delta is an agricultural scholastic honorary mostly for graduate students. I believe North Dakota was only one of two or three states that did not have a chapter. The majority of our faculty are members from the institution in which they graduated. I was selected as a member at The University of Arizona in 1972. Dr. Frank Manthey, a member of Plant Sciences, who was inducted at Purdue in 1979, is chapter president. This year I nominated Ph.D. students Rebekah Oliver, Marisol Berti, Rongshuang Lin and Guorong Zhang; Deborah Willard, an M.S. student, and Dr. Marcelo Melani, a recent graduate, for membership. One member of the selection committee told me "Wow, Plant Sciences really has some outstanding students." The average GPA of these students is 3.99. They are an example of what hard work and dedication, along with dedicated faculty mentoring, can do. I also nominated Dr. Xiwen Cai, our wheat geneticist, and Dr. Susie Thompson, the NDSU potato breeder, for membership. I could have nominated a lot more, but wanted to save some faculty and students for future years. All of them were accepted by the evaluation committee and will be inducted into Gamma Sigma Delta on April 13.

Guess what, I won the prestigious Bison Chip award this year. I was overcome with the emotion and euphoria that comes with winning this award, especially when there are so many others that are so much more deserving. I will not go into the reason I won, I was just trying to reduce the state's electric bill. I will work hard this coming year to make sure other faculty have the chance to share this honor.

This year the College of Agriculture, Food Systems and Natural Resources received a donation of \$2.2M from Frank Bain who was born in Butte, ND. Mr. Bain had no known connection to NDSU and left North Dakota many years ago. The intent from this gift is to be used strictly for scholarships.



Scholarship Recipients:

For the 2006-2007 academic year, the department awarded \$35,845 in scholarships to the students. Of those awarded 40 are undergraduates (14 horticulture majors and 26 CWS majors) and 19 are graduate students.

2006-2007 scholarship recipients are as follows: (hometowns in ND, unless otherwise noted)

Horticulture Curriculum:

Harry C. Baker Memorial Scholarship, \$200: Rebecca Rogne, Minot; **Harry A. Graves Memorial Scholarship**, \$230: Jameson Peters, Britton, SD; **Margaret Haedt Memorial Scholarship in Horticulture**, \$200: John Stenger, Herman, MN; **Horticulture and Forestry Club Scholarship**, \$300: Kalene Duppong, Glen Ullin; **Horticulture and Forestry Faculty & Staff Scholarship**, \$200: (David) Ryan Sticha, New Prague, MN; **Horticulture Faculty Scholarship**, \$160: Jennifer Brause, Fergus Falls; **Hovland-Jensen Scholarship Fund**, \$365: Christine Hanson, Litchville; **Ruth M. Johnson Scholarship**, \$250: Shanna Hauck, Dunn Center; **Mainline Potato Company**, \$135: Kristin Spohr, Morris, MN; **North Dakota State Horticultural Society Scholarship**, \$750: Valerie Eitrem, Garretson, SD; **Henry R. & Corinne Foley Peterson Hort. Scholarship**, \$610: Alyssa Hoffert, Carrington; **H. Donald Piepkorn Scholarship**, \$445: Heather Ripley, Erhard, MN; **A.D. Stoesz Memorial Scholarship**, \$500: Sarah Keizer, Volga, SD; **W. Allan and H. Lucile Watt Scholarship**, \$245: Charles Elhard, Kulm;

CWS Curriculum:

Arthur Companies/Joe Burgum, \$350: Kirk Foster, Breckenridge, MN; **John Breker Crop Science Scholarship**, \$270: Nathan Cook, Valley City; **CHS Cooperative Foundation Scholarship**, \$500: Eric Enerson, Jamestown; **CHS Cooperative Foundation Scholarship**, \$500, Kirk Rabenberg, Britton, SD; **Centrol of Twin Valley**, \$1,000: Sarah Gubbels, Kennedy, MN; **James R. Dawson Scholarship**, \$400: Justin Balsdon, Langdon; **Russell and Anna Duncan Foundation Scholarship**, \$655: Jason Fiesel, Harvey; **Russell and Anna Duncan Foundation Scholarship**, \$655: Sheri Kemnitz, Cavalier; **Travis C. Engstrom Memorial Scholarship**, \$500: Nathan Cook, Valley City; **Ernie French Crop and Weed Sciences Scholarship**, \$500: Cameron Wahlstrom, Alexander; **Lars A. Jensen**

Scholarship (NDCISA), \$870: Lindsey Hanson, Portland; **H.R. Lund Freshman PLSC Scholarship**, \$500: Richard Heinrich, Medina; **George Meagher Scholarship**, \$1,000: Sarah Gegner Redwood Falls, MN; \$1,000: Diana Hanson Crookston, MN; \$1,000: Rebekah Miller, Lawton; **Monsanto Ag. Products Co. Scholarship**, \$500: Jason Thomas, Mandan; 500: Justin Preszler, Braddock; **ND Ag Assoc. - Irvine T. Dietrich**, \$500: Benjamin Crockett, Langdon; **ND Ag Assoc. - Donald Kenna**, \$500: Ryan Hunt, Bismarck; **ND Ag Assoc. - Chuck Rongen**, \$500: Jordan Kimball, Noonan; **Glenn A. Peterson Memorial Scholarship**, \$500: William Mack, Park Rapids, MN; \$500: Kimberly Kram, Munich; **P.C. Sandal Memorial Scholarship**, \$500: Andrew Friskop, Hankinson; **Harry and Lillie Seidel Agriculture Scholarship**, \$1,200: Nancy Hillen, Fargo; **Theodore E. and Marguerite R. Stoa Freshman Scholarship**, \$420: Jordan Kimball, Noonan; **Jack F. Carter Plant Sciences Undergraduate Scholastic and Leadership Scholarship**, \$1,000: Rebekah Miller, Lawton

Graduate Students:

Jack F. Carter Plant Sciences Graduate Scholastic and Leadership Scholarship, \$500: Marisol Berti, Chillan, Chile; **Jack F. Carter Plant Sciences Graduate Scholastic and Leadership Scholarship**, \$500: Deborah Willard, Barnesville, MN; **H. L. Bolley Graduate Scholarship**, \$1,040: Rebekah Oliver, Pelican Rapids, MN; **Gustav N. Geiszler Memorial Scholarship**, \$300: Gauri Nazre, India; **John H. Longwell, Jr. Memorial Scholarship**, \$295: Angela Sebelius, Overly; **Devin Miller Memorial Scholarship**, \$400: Bahadir Sezegen, Istanbul, Turkey; **Eric Matthew Miller Memorial Scholarship**, \$1,000: Marisol Berti, Chillan, Chile; **Monsanto Graduate Student Scholarship**, \$750: James Loken, Grafton; \$750: Arielle Ehli, Lidgerwood; **Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Marisol Berti, Chillan, Chile; **Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Emma Gamotin, Baybay, Leyte, Philippines; **Linda Moses Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Aruna Kandikonda, Andhra Pradesh, India; **Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Rongshuang Lin, Yantai, Shandong, P.R. China; **Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Rebekah Oliver, Pelican Rapids, MN; **Charles and Linda Moses**

Presidential Graduate Fellowship, \$1,000: Deborah Willard, Barnesville; **Charles and Linda Moses Presidential Graduate Fellowship**, \$1,000: Guorong Zhang, Shanghai, China; **John D. Nalewaja Graduate Scholarship**, \$815: Angela Kazmierczak, Stephen, MN; **North Dakota Dry Edible Bean Seed Growers Scholarship**, \$1,000, Vineeta Bilgi, Mumbai, India; **Glenn L. Smith International Graduate Fellowship**, \$585: Juan Caffarel, Tarariras Colonia, Uruguay



Alyssa Hoffert, a horticulture major from Carrington, ND, was the recent recipient of a \$1,000 scholarship awarded by the North Central Turfgrass Association. Rebekah Miller, a crop and weed science major from Lawton, ND, was selected as the 2006 Outstanding Senior by the Department of Plant Sciences. She was recognized by the American Society of Agronomy and the Crop Science Society of America. Her dad, Dennis, has an M.S. degree from our department.



Alyssa Hoffert



Rebekah Miller

New babies in the department this past year: Brooke Lauren was born to Shawn and Heather Schmidt on August 4, 2006. She weighed 7 pounds and was 20 inches long. Brooke is the granddaughter of Louise and Clayton Heinz. Just stop by Louise's desk and if you twist her arm, she will show you a photo. Joseph James was born to Lisa and Greg Gray on December 22, 2006. He weighed 7 pounds, 9 ounces and was 20¾ inches long. Lisa is a technician with Dr. Harlene Hatterman-Valenti. There were two babies born on February 22. Katie Ann Marie was born to Deb and Mark Hatzenbeller. She weighed 7 pounds, 3 ounces. Deb is a chemist with Dr. Paul Schwarz. And last but not least, Ella Suzanne was born to Shana and Jeremy Pederson. She weighed 8 pounds and was 19½ inches long. Both Jeremy and Shana are M.S. graduates from our department. Shana works on the USDA potato project and Jeremy works with Dr. Dale Williams, Seedstocks Director.



That about takes care of my portion of the Blizzard Watch. If you are in the Fargo area, stop in and visit us. Again, if you know of any potential graduate students, send them our way. Also visit us on the web at <http://www.ag.ndsu.edu/plantsci/>.

If you have any questions or comments, give me a call at 701.231.8137 or email me at albert.schneiter@ndsu.edu. I hope each of you has a great personal and professional year and all your loved ones remain safe and sound.

Remember "Once a Bison, always a Bison"

Al Schneiter, Dept. Chair

Eddie Nelson, Administrative Secretary



Edie Nelson

Plant Sciences Faculty:

Schneiter, A. A.
 Berglund, D. R.
 Berzonsky, W. A.
 Cai, X.
 Carena, M. J.
 Christoffers, M
 Dai, D. W.
 Deckard, E. L.
 Dexter, A. G.
 Elias, E. M.
 Grafton, K. F.
 Hammond, J. J.
 Hatterman-Valenti, H.
 Helms, T. C.
 Herman, D. E.
 Horsley, R. D.
 Howatt, K. A.
 Johnson, B. L.
 Kianian, S. F.
 Lee, C. W.
 Li, D. M.
 Lym, R. G.
 Manthey, F. A.
 McClean, P. E.
 McMullen, M. S.
 Mergoum, M.
 Messersmith, C. G.
 Meyer, D. W.
 Osorno, J.
 Ransom, J. K.
 Schwarz, P.
 Simsek, S.
 Smith, R. C.
 Thompson, A. L.
 Thostenson, A.
 Williams, D.
 Zeleznik, J. D.
 Zollinger, R. K.

Prof. & Chair (*crop production*)
 Prof. (*ext. agr., row crops, specialty crops*)
 Assoc. Prof. (*HWS, spec./ sawfly wheat brdg*)
 Asst. Prof. (*wheat /cytology genetics teaching*)
 Assoc. Prof. (*corn breeding and genetics*)
 Asst. Prof. (*weed science/genetics teaching*)
 Asst. Prof. (*woody plant phys./biotech.*)
 Prof. (*crop physiology*)
 Prof. (*extension weed phys., sugarbeets*)
 Prof. (*durum wheat breeding*)
 Prof. (*dry bean breeding*)
 Prof. (*flax/crambe brdg, computer prog.*)
 Asst. Prof. (*high value crop production*)
 Prof. (*soybean breeding, genetics*)
 Prof. (*woody plants, ornamentals*)
 Prof. (*6-row /2-row barley brdg, genetics*)
 Assoc. Prof. (*weed science-annual weeds*)
 Assoc. Prof. (*sunfl., minor, new crop prod.*)
 Assoc. Prof. (*HRS, durum wh. germ. enhance.*)
 Prof. (*ornamentals, turf/biotech. teaching*)
 Asst. Prof. (*sports turf management*)
 Prof. (*perennial weed control*)
 Assoc. Prof. (*durum and pasta quality*)
 Prof. (*dry bean genetics, biotechnology*)
 Assoc. Prof. (*oat breeding and genetics*)
 Assoc. Prof. (*HRSW breeding, genetics*)
 Prof. (*weed science, application technology*)
 Prof. (*forage production and cropping systems*)
 Asst. Prof. (*dry edible bean breeding*)
 Assoc. Prof. (*ext. agronomist, sm. grains*)
 Prof. (*malting barley quality*)
 Asst. Prof. (*HRSW end quality*)
 Prof. (*extension horticulture/turfgrass*)
 Asst. Prof. (*potato breeding*)
 Ext. Spec. (*pesticide program spec.*)
 Seedstocks Director (*seedstocks*)
 Ext. Forester (*urban/rural forestry*)
 Prof. (*extension weed control*)



Dr. Alan and Fran Dexter




Tour of the Horticulture Research & Demonstration Gardens



North Dakota Badlands

Adjunct Professors - Ph.D (*USDA):

Anderson, J. V.*	(plant biochemistry)
Campbell, L. G.*	(sugarbeet genetics)
Carr, P. M.	(sustainable agric.)
Chao, Shiaoman*	(genomics)
Chao, W. S.*	(perennial weeds)
Dahleen, L. S.*	(barley genetics, biotech.)
Doehlert, D.*	(oat germplasm enhance.)
Faris, J.*	(cereal crops)
Foley, M. E.*	(weed biology)
Henson, R. A. (Carrington REC)	(crop production)
Horvath, D. P.*	(perennial weed phys.)
Hossain, K.	(wheat germplasm enhanc.)
Hu, Jinguo*	(sunflower genomics)
Jan, C. C.*	(sunflower cytogenetics)
Jauhar, P. P.*	(wheat cytogenetics)
Klotz, K. L.*	(sugarbeet physiology)
Lulai, E. C.*	(potato physiology)
Miller, J. F.*	(flax and sunflower genetics)
Seiler, G. J.*	(sunflower & sugarbeet germ.)
Sowokinos, J. R.*	(potato physiology)
Suttle, J. C.*	(potato physiology)
Xu, S. S.*	(HRSW development)



University of Puerto Rico-Mayaguez: Training/education of PhD students through the joint PhD plant breeding program

Beaver, J.	PhD, Univ. of Illinois (<i>dry edible beans</i>)
Brunner, B.	PhD, Michigan State Univ.
Erpelding, J.	PhD, Montana State Univ.
Macchiavelli, R.	PhD, Pennsylvania State Univ.
Ortiz, C.	PhD, Univ. of Arkansas
Porch, T.	PhD, Cornell
Wessel-Beaver, L.	PhD, Univ. Of Illinois (<i>squash, pumpkin</i>)



FAO-Rome, Italy: Collaborate in plant breeding research

Guimaraes, E.P.	PhD, Iowa State Univ.
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**Postdoc. Research Fellow/Visiting Scientist,
Project Leader, Area of Research:**

Feng, J.	Jan (sunflower cytogenetics)
Fang, W.	Li (sports turf management)
Gedye, K.	Kianian (HRS, durum wh. germ. enhance.)
Ghavami, F.	Kianian (HRS, durum wh. germ enhance.)
Li, Y.	Schwarz (malting barley quality)
Liu, L.	Cai (wheat genetics)
Melani, M.	Johnson/McMullen (canola germplasm)
Rishi, A.	Kianian (wheat genetics)
Rojas-Cifuentes, G.	Grafton (bean breeding)
Singh, P.	Mergoum (wheat breeding)
Xhang, Q.	Cai (wheat genetics)
Xihua, Z.	Carena (corn breeding)
Yue, B.	Hu (sunflower research)
Zhou, B.	Schwarz (malting barley quality)
Zhu, X.	Cai (wheat genetics)



Office Staff:

Anderson, Julie	Nelson, Edie
Blaskowski, Michelle	Odegaard, Mary Beth
Buringrud, Eileen	Perrin, Char
Heinz, Louise	Watson, Sheila
Johnson, Lisa	Welter, Melissa



Research Specialists, Technicians, Chemists:

Abdallah, Matthew	(HRSW breeding)	Hanson, Dave	(soybean breeding)
Auwarter, Collin	(high value crop prod.)	Hatzenbeller, Debra	(malting barley quality)
Barr, John	(malting barley)	Hegstad, Justin	(wheat germ. enhancement)
Baumann, Robert	(oat breeding)	Kertsgaard, Karen	(malting barley quality)
Bellon, Mike	(seed processing)	Hinsz, Brent	(durum and pasta quality)
Carlson, Aaron	(sugarbeets)	Hochhalter, Martin	(barley breeding)
Castillo, Cielo	(woody plants)	Iddrisu Nurudeen, Mohamed	(urban/rural forestry)
Chaput, Larry	(woody plants)	Kercher, Kreg	(durum wheat breeding)
Christianson, Katheryn	(perennial weeds)	Lafta, Abbas	(potato physiology)
Ciernia, Mark	(weed control)	Laschkewitsch, Barb	(vegetables & perennials)
Dash, Snigdharani (Reena)	(durum quality)	Leach, Gene	(hard spring wheat)
Davidson-Harrington, Janet	(weed science)	Lee, Rian	(dry bean genetics/biotech.)
Deckard, Brenda	(student services director)	Lindberg, Lyle	(flax breeding)
Faller, Jason	(barley breeding)	Luecke, John	(sugarbeet weed control)
Farnsworth, Bryce	(potato breeding)	Magnuson, Victoria	(woody plants biotech.)
Gillespie, James	(malting barley quality)	Maianu, Josef	(seedstocks)
Gray, Lisa	(high value crop production)	Mark, Sandra	(weed science)
Gregoire, Pete	(crop physiology)	Martin, Larry	(soybean breeding)
Halley, Jeremiah	(HRSW breeding)	McArthur, Rachel	(wheat genetics)

Research Specialists, Technicians, Chemists, cont:

McMonagle, Kelly	(durum quality)	Ries, Jerry	(weed survey)
Meyer, Scott	(extension small grains)	Roach, Ron	(weed control)
Nilles, Richard	(potato breeding)	Stancyk, Stan	(durum breeding)
Nudell, Robert	(forages)	Underdahl, Jesse	(HRSW breeding, genetics)
Olson, Rachel	(wheat quality)	Underdahl, Sarah	(durum breeding)
Olson, Truman	(wheat quality)	VanderWal, Jody	(dry bean breeding)
Peckrul, Allen	(germplasm enhancement)	Wanner, Duane	(corn breeding)
Pederson, Jeremy	(seedstocks)	Whitney, Kristin	(durum and pasta quality)
Pederson, Shauna	(weed science)	Wijetunga, Theja	(molecular markers)
Petersen, Paula	(crop production)	Zhou, Zing Kai	(weed science)



Graduate Students and Advisor:

Abeysekara, Nilwala	Faris	Mamidi, Sujana	McClellan
AbuHammad, Wesam	Elias	Michalak, Monika	Kianian
Almquist, Travis	Lym	Modali, Harini	Fawley
Beckers, Jesse	Zeleznik	Negeri, Adisu Teshome	Horsley
Berti, Marisol Tatiana	Johnson	Noyszewski, Andrzej	Kianian
Bhamidimarri, Suresh	Kianian/Elias	Oberoi (Seth), Kiran	Kianian
Bolivar, Jenny	Horsley	Ostlie, Michael	Howatt
Briese, Lee	Helms	Pedraza-Garcia, Fabio	Horsley
Caffarel, Juan Carlos	Mergoum	Pelinganga, Osvaldo	Zeleznik
Carlson, Andrea	Smith	Reddy, Leela	Faris
Chandwalker, Gauri (Nazre)	Christoffers	Rugg, Mory	Berzonsky
Chenggen, Chu	Faris	Samuel, Luke	Lym
Dilawari, Mridull	Kianian	Sandhu, Gurleen	Manthey
Dong, Xinrong	Schwarz	Sandhu, Harkanwal	Manthey
Eidenshink, John	Berzonsky	Sebelius, Angela	McMullen
Eno, Colins Ogwandi	Carena	Sezegen, Bahadir	Carena
Gamotin, Emma	Berzonsky	Singh, Vineeta	Manthey
Gilbertson, Peter	Johnson	Su, Yuanjie	Dai
Hanson, Lindsey	Howatt	Swanberg, Andrea	Dai
Huhn, Melissa	Elias	Tyagi, Neerja	Dahleen
Jansen, Jenna	Kianian	Varanasi, Vijaya	Horvath
Kandikonda, Aruna	Christoffers	Wang, Hongxia	Dai
Kazmierczak, Angela	Howatt	Wang, Tao	Elias
Knutson, Brandon	McClellan	Weinlaeder, Scott	Johnson
Lin, Rongshuang	Horsley	Wert, Todd W.	Thompson
Loken, James	H-Valenti	Xu Bin	Dai
Ma, Guojia	Cai	Zhang, Guorong	Mergoum
		Zhang, Zeng Cui	Faris/Xu



Joel Ransom speaking at Field Days



Mum display

First, thank you for the holiday messages and several photos, that came from you to the department or to us personally, and other messages via e-mail coming mostly to Mrs. Carter at imysm@aol.com. We appreciate letters, and especially photos, very much and wish to "keep track"--please tell us more about yourself and your families. Send pictures, even if you may have aged since we last met--we all do! Several former graduate students and faculty wrote letters or visited us, and NDSU, in summer 2006.

Dr. Hossein Kaveh, his wife Parvin, and son Behzad, visited us on campus. They live in Maryland but visit Iran sometimes. A story about Dr. Kaveh was published in the latest Bison Briefs, if you get that publication. If you don't get Bison Briefs, please send us your address and e-mail, if any, and we will get it sent to you. It has all the latest news about NDSU. Others writing were Belgin Cukadar from Turkey but now a plant breeder in Indiana with Monsanto; Soon and Kiok Park from Canada; Luis Bueno in Brazil has written several times; Leticia Navarro, wife of Manuel Navarro in Mexico; and Armida Rondon, wife of Mario Rondon of Peru. The twin sons of the Rondon's were born at NDSU and both live and work in Pennsylvania—Armida visits often.

I passed 87 years last October 2006, and Imogene is not far behind, passed 39 for sure!! We had our 65th wedding anniversary October 19, 2006! Some of you donate to the Jack Carter Endowment Professorship funded through NDSU, thanks, or if not, it's not too late to give! Send to the NDSU Development Foundation, 1241 North University Drive, Fargo, ND 58105.

I mostly feel good and continue usual activities at home or NDSU most days and outdoors in growing season. Mrs. Carter is our computer expert which allows very efficient email in U.S. and internationally and communicates frequently with some of you older former students, or wives, or their children in some cases (imysm@aol.com). No stamp needed for you to communicate with us! She continues to be troubled by an imbalance problem for which the medics seem to have no remedy. Our five children and families continue to live and work as in past years--some of you know them. Our daughter Nancy has a Fulbright Fellowship to China in summer of 2007. She teaches English and biology to international high school students in Alexandria, VA. Our oldest grandson was married in 2002 and we have been great-grandparents of a precocious young lady since June, 2003 and now a great grandson since November, 2006.

I still work most afternoons and part of some mornings at NDSU with many former and some new associates. I'm helped as needed by excellent "secretaries" and others. Yes, Eileen is still here!!!

I'm still President of the Flax Institute of the United States. We met in March 2006, and will again March 26-28, 2008, in Fargo. I also serve as "flax consultant" to the North Dakota Oilseed Council and supervise some the research that they fund. Flaxseed provides healthful omega 3 fatty acid, lots of dietary fiber and apparent anticarcinogenic lignans in human nutrition, and for other animals. I recommend your eating about 30 grams or 1/5 cupful of ground flaxseed per day in orange juice, baked foods, or whatever. Flaxseed has been consumed for hundreds of years by people in the countries of some former international students. Please request a flax-for-food leaflet if you wish to learn more.

Mostly at home I have been doing more cooking than formerly, some maintenance, gardening, and fishing. I graft five apple trees to multi-variety trees to sell each year at Bidder's Bowl, and for special friends, (they averaged \$525 each in 2006 sales) and I attended Bidder's Bowl (raises funds for NDSU Development Foundation) in October, 2006. Also, we attend home games of Bison football and basketball. NDSU has gone Division IAA in sports so many of the games are with institutions of which we know little.

The Plant Sciences faculty is changing. Faculty that I hired 30-35 years ago have or will retire soon, i.e. Drs. Alan Dexter, Jerry Miller (USDA), Duane Berglund, Cal Messersmith, Jerry Franckowiak (has taken a job in Australia) have or will retire soon, and new people will replace them.

In retrospect, many of you have influenced our work and lives favorably, and we yours, we hope. We are unlikely to attend future Agronomy meetings and the Blizzard Party to see some of you, so please write, e-mail or stop to see us as you pass this way. Best wishes to you for a HAPPY and HEALTHFUL 2007.

Dr. and Mrs. Carter

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