



NDSU—DEPARTMENT OF PLANT SCIENCES
BLIZZARD WATCH

Greetings from Plant Sciences March 2001



*2000
in
review*

Our very warmest greetings from all of the faculty, staff, and students in the Department of Plant Sciences. We wish the very best to all of you in both your personal and professional lives. It's hard to believe another year has gone by since I sat down to write last year's Blizzard Watch. For me each year seems to go faster. I will probably be writing 2000 on most of my letters and checks until April. I am trainable, but a slow learner. Thank goodness I have Ann at home, four daughters, and Eileen here at work to keep me going on the straight and narrow. I hope all of you enjoy this update of what is happening in our department. I apologize for the lateness of Blizzard Watch this year. I fell behind in December and have just never caught up. I guess you will have to pretend this is a March blizzard.

Like all of us who have lived in North Dakota, I will talk about the weather first. The month of January was quite pleasant. It was above freezing a few days but mostly the temperatures were not cold at night and in the 20s during the day. In contrast, December and February were quite cold and

generally miserable. We currently have about 18 inches of snow on the ground – most of which came from a series of storms in December and a storm just recently.

Here on campus there was some damage due to a flood the third week in June. On June 19th we received 6-7 inches of rain in a very short period. The ground was already saturated so most of it moved across the surrounding fields instead of going down into the ground. The basement of the library was badly flooded, as was Morrill Hall. Numerous basements in town were also flooded. Many of the research plots at Fargo, Casselton, and Prosper were severely damaged. The campus was without regular phone service for a couple of weeks and our main method of communication was via cell phones. NDSU was extremely fortunate that the storm did not occur during a time when school was in session.

It was nice to see so many of you at the NDSU Blizzard Party held in conjunction with the ASA meetings in Minneapolis. As those of you that attended know, our party was graced by the attendance of several of our secretaries. These fantastic ladies make all of our posters for the meetings and I thought this would provide an opportunity to see what the competition is doing and to get some ideas for future improvement. I think our posters stack up quite well, but

we like to stay ahead of the competition. We also had about 14 CWS undergraduates attend the meeting for a couple of days. We recently had a number of hort students attend the Minnesota Landscape Architecture Convention and Career Fair in Minneapolis.

It seems like our faculty are constantly traveling to meetings here in the U.S. and visiting winter nurseries in various parts of the world. As I write, Drs. Frohberg, Elias, Horsley, and Berzonsky are in New Zealand visiting their winter nurseries. Dr. Johnson is in Chile and Dr. Lym is in Hawaii. I just sit here and sign their travel requests and other papers. I should not complain as the faculty does allow me to travel to the field days in Williston, Langdon, Minot, etc. and the Winter Show in Valley City so my life is not without excitement.

2000 was another diverse year in North Dakota relative to crop production. The spring wheat, durum wheat and barley scab problem moved westward and was a major problem in the Minot and Crosby areas of NW North Dakota. Another problem that occurred in parts of North Dakota this year was rain just prior to harvest. As a result, much of the grain sprouted and was non-harvestable. The major problem, however, that crop producers are facing is low prices. There does not seem to be a highlight in any of the plant commodities relative to a decent price.

As most of you know, our department offers a B.S. degree in both Crop and Weed Sciences and Horticulture. Our enrollments are down in both areas but we have hopes of rebounding. Applications in the College of Agriculture this year are 20% above what they were last year.

The legislature, which is meeting this year, will consider adding a turf/golf faculty position in the department. Our hope is that over a period of time as the program becomes established that it could draw about 30 - 40 students. We currently offer a class in turfgrass management, but the hiring of just one faculty member in this area would strengthen the program significantly. I will keep you posted.

Fall semester we had 93 undergraduates in Crop and Weed Sciences and 40 undergraduates in Horticulture. Our graduate numbers have increased dramatically from the low 30s last year to the mid 40s this year. A list is provided at the end of Blizzard Watch. For the first time in years we have five assistantships funded by the state. The balance are funded by grants. We have a number of faculty who would have an interest in having additional students, but providing financial support to good student candidates is always a problem. New students since last year and their advisors are: Cesar Carvalho (Lorenzen), Ken Deibert (Lym), Ann Erickson (Lym), Shana Forster (Grafton), Sarah Gehlhar (Kianian), Kirk Hartel (Berzonsky), Chad Ingeman (Peel), Nadejda Krasheninnik (Franckowiak), Tim Larson (Johnson), Guillermo VanBecelaere (Miller), Todd Wehking (Howatt), and Guotai Yu (Franckowiak).

Two new scholarships have been added for the 2001-2002 academic year. The North Dakota Dry Edible Bean Seed Growers Association voted at their January 2001 meeting to set aside \$1,000 annually for two \$500 scholarships in recognition of the contributions to the dry edible bean seed industry by Bill Kuntz, a former employee of the North Dakota State Seed Department. These awards will be made to outstanding graduate students whose research is directed towards dry edible bean. Also, a one-time \$500 scholarship will be awarded to a horticulture undergraduate student in memory of Dr. Edward Lana, former chairman of the Horticulture and Forestry Department.

Ph.D. students who completed their degrees this year were Carlos Urrea, who worked with Dr. Horsley; Jose Gonzales, who worked with Dr. Elias and Dr. Kianian; Brad Ramsdale, who worked with Dr. Messersmith; and Boris Sagredo (CMB), who worked with Dr. Lorenzen. Barb Laschkewitsch, who worked with Dr. Smith, and Shannon Oltmans, who worked with Dr. Novy, completed their M.S. degrees.

NDSU will host the annual graduate student symposium this year – the 17th annual get-together. This event alternates between NDSU, the University of Saskatchewan, and the University of Manitoba.

Again, if any of you know of any potential graduate students that want good training in any of the plant sciences, please let me know. We are always looking for good graduate students.

Retirements

We had three retirements this year. Dr. Spilde retired in December as the director of the seedstocks project. He immediately moved to Texas for the winter, but will return to Casselton to live this spring. LeRoy did an excellent job in what is one of the toughest jobs on campus. The Winter Show held in Valley City will recognize Dr. Spilde in March with the State Crop Show dedicated to him.



Dr. LeRoy and Dora Spilde at his retirement reception.

Dr. Whited retired the end of December. Dean had an 80% college appointment and had the entire responsibility for teaching an introductory genetics class. In addition to students in agriculture, the class drew students from almost every discipline at NDSU. This is probably the largest class taught in the College of Agriculture.

Dr. Whited was an excellent instructor and was extremely innovative. With the help of Dr. Hammond, all of the lectures

were taped and then added onto the department's home page so that students could view it via the Internet at their leisure.

Dr. Whited was extremely popular with the students and consistently had some of the highest class evaluations in the department.



Dr. Dean and Sandy Whited at his retirement reception.

Dr. S. S. Maan retired on February 28, 2001. Dr. Maan worked half time the last ten years. The department and NDSU have been very fortunate to have Dr. Maan as an employee.



He is one of the few people that I have difficulty addressing by his first name because of the profound respect I have for him. I feel the same way about Dr. Carter.

Dr. Maan is one of the best known wheat cytogeneticists in the world and probably one of

the most modest men you will ever meet.

He was the first winner of the Fargo Chamber of Commerce Distinguished Professor Award in 1978. He will leave a big hole that will be difficult to fill. Dr. Maan and his wife, Ranjit, will move to Davis, California where they are building a home.

Personnel Changes

Two new faculty have been hired since last year's Blizzard Watch.

Dr. Harlene Hatterman-Valenti, a graduate of Iowa State, has been hired for the high value crop production position. This is a new project that is starting from scratch, but Harlene has already received some funding for research.



She will also take over the potato production research that had been conducted by Dr. Jim Lorenzen. Jim will focus more of his efforts toward potato germplasm enhancement. I feel that this change will significantly strengthen the potato research efforts at NDSU, which are already among the strongest in the U.S.

We continue to look for a potato breeder to lead the program, which encompasses several departments. Interviews will be held in April. An offer was made to and accepted by an individual, but he resigned the position after learning of the June floods in Fargo.

Dr. Dale Williams joined our department as the new director of the seedstocks project replacing



Dr. LeRoy Spilde. Dale is the former director of the seedstocks project for

Texas A & M. The NDSU seedstocks project is probably the largest in the U.S. in both the amount of seed produced and the breadth of the crops that are grown. The project also has responsibility for the management of the Pioneer germplasm for NDSU and will also be involved with the increase of GMO varieties when that time comes to pass. I have always felt that this was the toughest job in the department and probably in the college. This project seems to be the focal point for anything that goes wrong in seed production in the state. Since the issue sometimes involves money, it can be challenging at times.

With the retirement of Dr. Whited, the department plans to hire two faculty members to

teach the genetics class. Dr. Whited's .80 appointment will be split into two positions – each having a .40 teaching appointment and a .60 research appointment. The two .60 appointments will come from the resignations of Drs. Galitz, Duysen and Maan. This will leave the department with a balance of .30 research, which I hope to add onto the golf/turf position.

The first of the two positions to replace Dr. Whited's teaching responsibility will be in the area of weed genetics and is now being advertised with interviews the end of February and early March. Whoever is hired will teach the introductory genetics class fall semester. Ten years ago the disciplines of weed science and genetics were far apart. With the development of weeds that have herbicide resistance and the development of new technologies, the two disciplines have become intertwined in some areas. I have strongly encouraged more of our weed science graduate students to take breeding and genetics classes. Weed genetics will be a very useful, exciting, and interesting area of research.

We hope to obtain permission to fill the second position as soon as possible with the individual hired teaching introductory genetics beginning January 2002. Drs. Grafton and Carena are teaching the class this semester.

Dr. Ken Grafton will devote half of his efforts the next two years as Associate Dean of the Gradu-

ate School. He began that assignment on January 1.

Our office staff has a new face with the hiring of Michelle Blaszkowski, who replaced Sharon Ahrens.



Tammy Erdmann moved from a nine month to a 12 month position. We are currently looking for a nine month employee to work with the extension personnel.

Char Perrin, who has been working for extension and doing all of the grant applications will spend more of her time working with grants. Since our department brought in almost \$3M in grants last year, it is a big job. I hope with the additional effort we are assigning to this part of our program, we will be able to track the grants for faculty more efficiently.

Other new support staff are Bill



Hubble, who replaced Jen Huckle in Dr. Frohberg's wheat breeding team.

Kreg Kercher joined Dr. Elias' durum breeding project.



Wayne Sargent, who worked with Dr. Cheng, resigned in August. Wayne accepted a position as a research specialist with the USDA here in Fargo. A search for a replacement is currently underway. Scott Fitterer, who worked for Dr. Zollinger for several years, resigned for a position with Pioneer. Jeremy Peterson replaced Steve Ellefson in the six row barley project.

We also have a number of new Postdoctoral Research Fellows. Dr. Khwaja Hossain is working with Dr. Kianian, as is



Dr. Venugopal Kalavacharla.



They are working on the NSF funded wheat genomics project. This is a large national effort involving 14 institutions from across the United States.

Dr. Brad Ramsdale has joined Dr. Messersmith's team. Brad is



conducting application technology research focusing on the interaction of very low application volumes, adjuvant concentration, and spray nozzle type, including drift reducing nozzles.

Dr. Edward Szelezniak is working half-time with Dr. Dexter on weed control in sugarbeet, including



lanceleaf sage biology, and half-time with Dr. Messersmith and visiting scientist Dr. Zenon Woznica on improvement of herbicide adjuvants.

Dr. Brian DeVilliers from South Africa was a visiting scientist in our department for about five months. This was his second visit to our department, both times working with Dr. Messersmith.

Dr. In Sup So, a professor of horticulture at Cheju National University in South Korea, is a visiting scientist working

with Dr. Chiwon Lee. Dr. So's area of interest is floriculture and plant tissue culture.

Drs. Justin Faris and Wun Shaw Chao were approved as adjunct faculty in our department. Justin replaced the USDA position vacated by the retirement of Dr. Leonard Joppa. Justin's area of research is wheat molecular genetics. Dr. Chao conducts research in the area of molecular biology of weed species. The USDA will refill the position vacated by the retirement of Dr. Norm Williams. Norm was also the Research Leader of the Cereals Research Unit.



Unfortunately, I have a lot of sad news to report to you.

Dr. Norm Williams, who was a USDA adjunct faculty in our department, passed away of a heart attack at his home this summer. Norm was a strong supporter of our department and for a number of years taught in our department, when our graduate pro-

gram was just getting started. Norm was a Fellow of the American Society of Agronomy, the Crop Science Society of America, and the American Association for the Advancement of Science. A small memorial is located on the west side of the Northern Crops Science Lab where he worked.

We also lost Iris Flatland, who was a secretary in our office for 11 ½ years, to pulmonary fibrosis. She was a tremendous asset to the department and we all miss her.

Dr. Ed Lana, who served as the Dept. Chair of Horticulture and Forestry from 1956 until his retirement in 1981, also passed away. He was always very kind to me and a strong supporter of the merger between Crop and Weed Sciences and Horticulture and Forestry, which formed the Department of Plant Sciences seven years ago. He had spent a lot of his time since his retirement working with the Fargo Food Pantry.

We also received news that Dr. Larry Mitich passed away. Larry was an extension weed scientist in our department for many years before resigning and accepting a similar job at UC Davis. Those of us that knew Larry remember him most for his great jokes and pranks. Unfortunately, I seemed to be the stooge for many of his pranks.

Gordon Auwarter, a M.S. graduate of our department in 1978, passed away at the age of 48 due

to a heart attack. Gordon worked for many years as a technician in our department before moving to Breckenridge, MN to work for Sigco Research. He was a strong supporter of NDSU and as solid and dependable as they come.

In early August I received word that Dr. Eduardo Zaffaroni, who had been one of my graduate students, and his wife were both killed in a car accident in Brazil. Eduardo, who received his degree in 1987, had made several trips back to the department after his graduation to present seminars and to visit with all of us.

Marvin Mayer died March 13, 2001. Marv had worked in our department and at NDSU for about 17 years. He was still working at NDSU at the time of his death.

New Releases

This year saw the release of several new children from plant sciences breeding programs. Some have been released and others will be released prior to field days to face the new world. These include 'Sargent' and 'Walsh' soybeans for the southern and northern parts of the North Dakota soybean production area. North Dakota now has over 1M acres of soybeans. 'HiFi', an oat variety high in Beta Glucan fiber, and 'Morton' oats will be released this summer. Morton is named in recog-

nition of Morton County, a major oat producing county. Also released was 'Dakota Rose,' a high-yielding red table stock potato variety, which maintains its bright red color longer than most other varieties. 'Jerry' is the name of our latest and last hard red winter wheat variety from our breeding program which was closed in the mid 90's. This variety, which will be released this summer, was selected from some of the more advanced lines that were in the program at the time of its closure. Jerry is named after Jerry Johnson, the only technician the project ever had. In



spite of numerous project leader changes, Jerry was always there to maintain the project.

Jerry is now a member of the durum breeding project. 'Pierce' is the name of a new durum variety to be released this summer just prior to field days. This variety maintains the high yield of its predecessors but has improved quality. The department is also involved in a direction with the release of Imidazolinone (IMI) tolerant wheat in cooperation with BASF.

A new hardy woody plant introduced this past year was Northern Acclaim™ Thornless Honey-locust. It is a sturdy, vigorous growing tree and quite drought resistant.

Congratulations!

Our department faculty, staff and students continue to garner a lot of awards – both here on campus and elsewhere. The department’s recipient of the Gerald Mott Meritorious Graduate Student Award from the Crop Science Society of America was



Shannon Oltmans. Shannon received her B.S.

from Iowa State University and a M.S. in plant breeding from NDSU. She is currently a graduate fellow in weed science.

Dr. Rodney Lym was named a Fellow at the Western Society of Weed Science meeting in March 2000. He is also the WSWS representative to CAST (Council of Agricultural Science and Technology), which provides unbiased information on agricultural issues.



Dr. Ron Smith was named “A Preferred Professor” by the Mortar Board Honor Society of NDSU. This award is in recognition of continued service and



dedication to the students of North Dakota State University through excellence in academic teaching.

Dr. Jim Lorenzen was a Fulbright fellow in Thailand conducting research at the Kamphaengsaen campus of Kasetsart University for 7½ months. His work was developing PCR-based methods of mapping candidate genes. He used these methods to map and clone fragments of disease resistance genes at or near the Ph3 locus for late blight resistance from a wild tomato species.



Mary Beth Odegaard, Administrative Secretary for the Pesticide Program, was selected to receive the Meritorious Support Service Award in 2000. This award reflects the recipient’s program efforts and continued dedication to the NDSU Extension Service.



Dr. Dean Whited received the “Preferred Agricultural Instructor” Award from the College of Agriculture Student Activities Council (CASAC). This award is given for continual service to the students in the College of Agriculture, ensuring that they will receive more than just a general education.

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Dr. Jerry Miller was elected President of the International Sunflower Association in July 2000. The International Sunflower Conference will be held in Fargo August 29 to September 2, 2004.

Dr. Ed Deckard, a faculty member at NDSU for 30 years, was named Blue Key Honor Society’s 2000 Distinguished Educator in December. This award was established in 1969 to honor outstanding educators at NDSU for extra interest in the students and their problems, edu-



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cation, field of expertise and the university.

Dr. Deckard is also the recipient of the NDSU Development Foundation Odney Award. The announcement was made by Dr. R. C. Schnell while Ed was teaching his PLSC 455/655 class on February 15, 2001. This award was established by the family of the late Robert Odney to recognize outstanding faculty teaching.

Dr. Phil McClean was the lead author and a member of a group of NDSU faculty who gave a project demonstration at the Spring 2000 Internet2 Member Meeting March 28-29, 2000 in Washington, D.C. Their presentation was entitled "Virtual Environments for Role-based Education", a demonstration that highlights the "Virtual Cell" and "Geology Explorer" educational environments.



Others honored for years of service as state employees included **Wayne Norby** (35 years), **Roger Genoch** (30 years), **Barb Laschkewitsch** and **Stan Stancyk** (10 years), and **Larry Martin** and **Pete Gregoire** (5 years).

The NDSU Development Foundation Waldron Research Award was presented to

Dr. Richard Frohberg. This award was established



by the NDSU Development Foundation Board of Trustees to recognize outstanding faculty research.



At the WSSA meetings in Greensboro, NC in February 2001, **Dr. Richard Zollinger** was awarded

the Weed Science Society of America Outstanding Extension Worker Award.

Larry Chaput joined the NDSU Quarter Century Club.

Others honored for years of service as state employees included **Wayne Norby** (35 years), **Roger Genoch** (30 years), **Barb Laschkewitsch** and **Stan Stancyk** (10 years), and **Larry Martin** and **Pete Gregoire** (5 years).

Dr. Ian B. Edwards, a 1973 graduate of our department under Dr. Frohberg's guidance, received the Alumni Achievement Award. This award honors individuals who have distinguished



themselves in their professional fields. For many years he

was the leader of the wheat breeding program with Pioneer Hi-Bred International. He later became the leader of international research for Pioneer. He currently is chief executive officer of Grain BioTech Australia Pty Ltd., a wheat breeding and biotechnology company in Perth, Australia

Three graduate students from our department placed during competition at the NCWSS meeting in Kansas City, KS in December 2000. There were



Wayne Norby, Roger Genoch, Larry Chaput, Pete Gregoire, Barb Laschkewitsch, and Stan Stancyk

10 - 12 students competing in each division.



Kris Mahoney received 2nd place in the Weed Ecology and Biology Division of the poster

competition - "Growth and biomass partitioning of biennial wormwood" - Kris J. Mahoney and George O. Kegode.

Bradley Fronning received 2nd place in the Corn, Sorghum, Soybeans and Annual Legumes Division of



the poster competition - "Control of biennial wormwood in soybean" - Bradley E. Fronning and George O. Kegode.

Chad Ringdahl received 2nd place in the Soybeans and Annual Legumes Division of the oral presentation competition - "Reduced herbicide rates for nightshade control in pinto bean" - Chad A. Ringdahl and Calvin G. Messersmith.

Dr. Richard Zollinger was the NDSU winner of the first annual (I think) Watermelon Seed Spitting Contest held by our department. He was crowned the "Heir of Air" for his efforts.



Watermelon Seed Spitting Contest Participants & Observer
Dr. James Venette, Dr. Rich Zollinger, Dr. Harlene Hatterman-Valenti, Alison Hagemeister, and Dr. Dale Herman

At the annual College of Ag Faculty meeting held in February 2001, **Dr. Marcelo Carena** and **Kirk Howatt** were elected to University Senate. **Dr. Jim Lorenzen** was elected to the University Senate Program Review Committee and **Dr. Duane Berglund** was elected to the 2001-2004 College PTE Committee.

Our fall picnic was held on September 13th at the new Red River

Valley Zoo located just south of Interstate 94. The picnic was well attended and enjoyed by young and not so young alike.

The winter social was held at Playmakers on December 1st.

The Social Committee asked that faculty, staff, and graduate students submit nominations for six awards and the committee chose the winners.

Winter Social Award Winners



Pete Gregoire, Al Schneiter, Melissa Welter, Lyle Lindberg, John Davies, and Brenda Deckard

The *Community Service Award* in recognition of contributions by an individual member of the department beyond the call of duty with an extra act of kindness or effort was presented to **Brenda Deckard**.

The *Distinguished Service Award* in recognition of an individual who contributed to the good image of the department, the university, and the state was awarded to **Kathy Christianson**.

Melissa Welter received the *Staff Office Award* in recognition of outstanding contributions to the well being of the department.

The *Staff Technical Award* in recognition of outstanding con-

tributions to the well being of the department by technical staff was presented to **Lyle Lindberg** and **Pete Gregoire**.

In recognition of outstanding contributions to the well being of the department by a student, **John Davies**, a graduate student from Australia, was the recipient of the *2000 Student Award*.

Can you believe that the chair won the coveted or not so coveted '*Bison Chip*'? As winner, I have the chance to present the award next year. I already have a long list of potential winners and it's early in the year. I think they call it "Payback Time" or something like that. Faculty, staff and students will all feel my wrath.

That's it. We send our best wishes to each of you and extend a warm welcome to any of you visiting the area to stop in for a visit.

Please keep us posted on information that may be of interest. My e-mail address is albert_schneider@ndsu.nodak.edu and our departmental fax number is 701-231-8474.

You can also update information for our mailing list on our home page at the NDSU website <http://www.ndsu.nodak.edu/instruct/hammond/dept/>.

Al Schneider
Professor and Chair



A Trip Down "Memory Lane" . . . Do you recognize any of these young folks from our department?



Jack's Corner

First, thank you for the holiday messages that came from you to the department or to us personally. We appreciate them 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! I passed 81 years last October 2000! Imogene is not far behind, passed 39 for sure!! Some of you donated to the Jack Carter Endowed Professor Fund, too, and thanks, or if not, it's not too late to give. Send to the NDSU Development Foundation, 1241 North University Drive, Fargo, ND 58105.

Edgar and Patricia Haro of Mexico (M.S. in durum wheat breeding in 1981-83) were interviewing in February 2000, and now Edgar is a sunflower breeder for Pioneer in Fargo. Patricia and a faculty wife from Bolivia visit Imogene regularly to “talk Spanish.” They enjoy each other.

I've survived 14 years of retirement successfully, I believe. I'm reading some papers in agronomy, food and nutrition science, and “talking flax” for food and feed for poultry, new feeder cattle, pets (companion animals), etc. We are cooperating in an exciting project at Kansas State University feeding flaxseed to feeder cattle. Recently I edited two M.S. theses and two papers for publication from Kansas State University – just like old times! I lectured about flax-as-food to dieticians twice at Concordia College, Moorhead in 1999-2000, and prepared a new colorful flax brochure mainly to promote flaxseed in human nutrition. Request if you wish a copy.

I answer hundreds of letters and phone calls, now e-mail at jemoe@ndsnext.nodak.edu (with Jennifer

Moe as my ‘middle man’) about flax as food or feed for animals.

I'm still President of the Flax Institute and the most recent two-day program was March 23-25, 2000 at Fargo -- the 58th Flax Institute. The 59th is March 28 - 31, 2002 at Fargo. The 58th program had 28 papers on the latest in flax research and promotion for food, feed, and coatings. I also serve as a “flax consultant” to the North Dakota Oilseed Council and supervise the research that they fund. Flaxseed provides healthful omega 3 fatty acid, lots of dietary fiber and anticarcinogenic lignans in human nutrition, and for other animals.

People in the countries of some former international students may have consumed flaxseed for hundreds of years, or should if they have not, for the omega 3 and fiber benefits. I urge you to watch the health press and scientific journals about flaxseed and oil as functional foods, AND buy and consume ground flaxseed for better nutrition.

Mostly at home I have been doing more cooking than formerly, some maintenance, gardening, and fishing. I grafted 9 apple trees to sell at Bidder's Bowl and for special friends, and attended Bidder's Bowl (raises funds for NDSU Development Foundation) in October. Also, we attend home games of Bison football and basketball, especially the lady basketball Bison, Div. II National Championships in 1994, 1995, 1996, and 2nd place in 2000.

Imogene, with the help from others, entertained international women for their February 2000 meeting at our home – like “old times” and will soon again in 2001. She still has imbalance problems from a shingles infection in her ear 5 ½ years ago. A recent trip to Mayo Clinic was not helpful.

In retrospect, many of you have influenced our work and lives favorably, and we yours, we hope. The 2000 agronomy meetings were nearby in Minneapolis, but we were unable to attend them or the Blizzard Party. Please stop to see us as you pass this way and best wishes for a HAPPY and HEALTHFUL 2001.

Dr. and Mrs. Carter

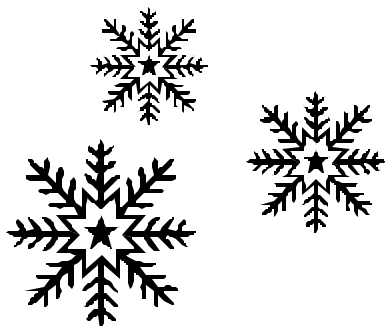
Faculty

Plant Sciences Faculty

Schneider, A. A. Prof. & Chair (*crop production*)
 Berglund, D. R. Prof. (*ext. agr., row crops, specialty crops*)
 Berzonsky, W. A. Asst. Prof. (*HWS, spec./sawfly wheat brdg.*)
 Carena, M. J. Asst. Prof. (*corn breeding and genetics*)
 Cheng, Z.-M. Assoc. Prof. (*woody plants, biotech.*)
 Deckard, E. L. Prof. (*crop physiology*)
 Dexter, A. G. Prof. (*ext. weed phys., sugarbeets*)
 Elias, E. M. Assoc. Prof. (*durum wheat breeding*)
 Franckowiak, J. D. Prof. (*2-row barley breeding, genetics*)
 Frohberg, R. C. Prof. (*HRS wheat breeding, genetics*)
 Grafton, K. F. Prof. (*dry bean breeding*)
 Hammond, J. J. Prof. (*flax/crambe brdg, computer prog.*)
 Hatterman-Valenti, H. Asst. Prof., (*high value crop production*)
 Helms, T. C. Assoc. Prof. (*soybean breeding, genetics*)
 Herman, D. E. Prof. (*woody plants, ornamentals*)
 Horsley, R. D. Assoc. Prof. (*6-row barley brdg, genetics*)
 Howatt, K. A. Asst. Prof. (*weed science-annual weeds*)
 Jackson, M. B. Ext. For. (*extension forestry*)
 Johnson, B. L. Asst. Prof. (*sunflower, minor, new crop prod.*)
 Kegode, G. O. Asst. Prof. (*weed biology & ecology*)
 Kianian, S. F. Asst. Prof. (*HRS, durum wheat germ. enhanc.*)
 Lee, C. W. Assoc. Prof. (*ornamentals, turf/biotech.*)
 Lorenzen, J. H. Assoc. Prof. (*potato physiology*)
 Lym, R. G. Prof. (*perennial weed control*)
 Maan, S. S. Prof. (*wheat genetics, cytogenetics*)
 McClean, P. E. Prof. (*dry bean genetics, biotechnology*)
 McMullen, M. S. Assoc. Prof. (*oat breeding and genetics*)
 McWilliams, D.A. Crop Prod. Spec. (*ext. corn/soybean*)
 Messersmith, C. G. Prof. (*weed science, physiology*)
 Meyer, D. W. Prof. (*forage production and physiology*)
 Peel, M. D. Asst. Prof. (*ext. small grain prod., var. sel.*)
 Smith, R. C. Prof. (*extension horticulture/turfgrass*)
 Thostenson, A. Ext. Spec. (*pesticide program spec.*)
 Williams, M. D. Seedstocks Director
 Zollinger, R.K. Assoc. Prof. (*extension weed control*)

Adjunct Professors

Anderson, J. V. USDA (*plant biochemistry*)
 Campbell, L. G. USDA (*sugarbeet genetics*)
 Carr, P. M. Dickinson Res/Ext Center (*sustainable ag.*)
 Chao, W. S. USDA (*molecular biology/weeds*)
 Dahleen, L. S. USDA (*barley genetics, biotechnology*)
 Faris, J. D. USDA (*wheat molecular genetics*)
 Foley, M. E. USDA (*weed biology*)
 Henson, R. A. Carrington Res/Ext. Center (*crop prod.*)
 Horvath, D. P. USDA (*perennial weed physiology*)
 Jan, C. C. USDA (*sunflower cytogenetics*)
 Jauhar, P. P. USDA (*wheat cytogenetics*)
 Klotz, K. L. USDA (*sugarbeet physiology*)
 Lulai, E. C. USDA (*potato physiology*)
 Miller, J. F. USDA (*flax and sunflower genetics*)
 Seiler, G. J. USDA (*sunflower/sugarbeet germplasm*)
 Sowokinos, J. R. USDA (*potato physiology*)
 Suttle, J. C. USDA (*potato physiology*)





Prof. Emeritus/Retired

Askew, R. G.	Prof. Emeritus (<i>extension horticulture</i>)
Boe, A. A.	Prof. Emeritus (<i>veg. brdg/tissue culture</i>)
Carter, J. F.	Prof. Emeritus (<i>flax utilization</i>)
Cross, H. Z.	Prof. Emeritus (<i>corn genetics, breeding</i>)
Duysen, M. E.	Prof. Emeritus (<i>cellular regulation</i>)
Foster, A. E.	Prof. Emeritus (<i>barley brdg., biometrics</i>)
Galitz, D.S.	Retired Prof. (<i>physiology</i>)
Holland, N.	Prof. Emeritus (<i>fruits, woody plants</i>)
Joppa, L.R.	Retired Adj. Prof., USDA (<i>res. gen., durum</i>)
Lund, H. R.	Prof. Emeritus (<i>potato brdg./genetics</i>)
Nalewaja, J. D.	Prof. Emeritus (<i>weed science, physiology</i>)
Nelson, D. C.	Prof. Emeritus (<i>potato physiology</i>)
Smith, G.A.	Retired Adj. Prof., USDA (<i>sugarbeet gen.</i>)
Smith, G. S.	Prof. Emeritus (<i>wheat breeding</i>)
Spilde, L. A.	Retired Assoc. Prof. (<i>seedstocks director</i>)
Whited, D. A.	Retired Prof. (<i>genetics teaching</i>)



Office Staff

Blaskowski, Michelle
Buringrud, Eileen
Cattanach, Letha
Erdmann, Tammy
Heinz, Louise
Moe, Jennifer
Odegaard, Mary Beth
Perrin, Char
Welter, Melissa

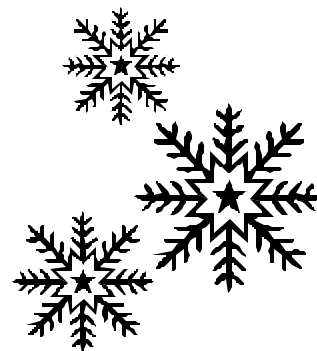


Postdoc Res. Fellows



Visiting Scientists

	(Project leader, Country, Area of Research)
Badaruddin, M.	Meyer (Bangladesh - <i>crop rotation</i>)
Cho, Keun-Ho	Lee (Korea - <i>plant nutrition</i>)
Christoffers, M.	Messersmith (<i>weed/molecular biol.</i>)
Del Blanco, I. A.	Kianian/Berzonsky (Argentina - <i>HWS & durum FHB res.</i>)
Gu, X.	Foley (PRC - <i>weed biology</i>)
Guo, Y.	Cheng (PRC - <i>molecular biology</i>)
Hossain, K.	Kianian (Bangladesh - <i>wheat genomics</i>)
Kalavacharla, V.	Kianian (India - <i>wheat genomics</i>)
Li, Z.	Messersmith (PRC - <i>weed physiology</i>)
Manoharan, M.	Dahleen (India - <i>barley genetics/biotech.</i>)
Mengistu, L.	Messersmith (Ethiopia - <i>weed mol/ biol.</i>)
Nadella, D.	Foley (India - <i>weed biology</i>)
Nandula, V.	Messersmith (India - <i>weed physiology</i>)
Ramsdale, B.	Messersmith (<i>herbicide applic. tech.</i>)
So, I.	Lee (South Korea - <i>plant tissue culture</i>)
Szeleznik, E.	Messersmith/Dexter (Poland - <i>herbicide adjuvants</i>)
Woznica, Z.	Messersmith (Poland - <i>herbicide adjuvants</i>)
Xu, X.	Elias (PRC - <i>durum wheat breeding</i>)



Research Specialists

Res. Technicians

Anderson, Chad	(HRSW)	Maianu, Josef	(seedstocks)
Baumann, Robert	(oat breeding)	Mark, Sandra	(weed science)
Bellon, Mike	(seed processing)	Martin, Larry	(soybean breeding)
Berg, Michelle	(weed science)	McArthur, Rachel	(barley gen./biotech/USDA)
Bergstrom, Aaron	(WWW site designer)	Miller, Jeffrey	(potato physiology/USDA)
Birdsall, David	(wheat breeding/USDA)	Norby, Wayne	(forage crop production)
Bresnahan, Gail	(weed science)	Pederson, Jeremy	barley breeding)
Carlson, Kay	(wheat cytogenetics)	Peterson, Paula	(crop production)
Chaput, Larry	(woody plants)	Rehder, Dale	(sunflower breeding/USDA)
Christianson, Kathryn	(perennial weeds)	Ries, Jerry	(weed survey)
Ciernia, Mark	(weed control)	Roach, Ron	(weed control)
Davidson-Harrington, Janet	(weed science)	Schroeder, Galen	(foundation seedstocks)
Deckard, Brenda	(ed. services professional)	Schwalbe, Mike	(potato breeding)
Erickson, Ann	(potato breeding/genetics)	Stancyk, Stan	(durum breeding)
Faller, James	(HRS wheat breeding)	VanderWal, Jody	(dry bean breeding)
Faller, Jason	(barley breeding)	Wanner, Duane	(corn breeding)
Farnsworth, Bryce	(potato breeding)	Wijetunga, Theja	(molecular markers)
Genoch, Roger	(barley breeding)		
Green, Marci	(barley breeding)		
Gregoire, Pete	(crop physiology)		
Hauf, Darrin	(dry bean breeding)		
Hegstad, Justin	(wheat germ. enhancement)		
Hodous, Bill	(HRSW)		
Johnson, Gerald	(durum wheat breeding)		
Kercher, Kreg	(durum wheat breeding)		
Kianian, Penny	(wheat germ. enhancement)		
Kimberlin, Cheryl	(plant physiology/USDA)		
Kleven, Sara	(HWSW)		
Klindworth, Daryl	(wheat genetics/USDA)		
Lafta, Abbas	(potato physiology)		
Larson, Wayne	(potato physiology)		
Laschkewitsch, Barb	(vegetables & perennials)		
Leach, Gene	(hard spring wheat)		
Lee, Rian	(dry bean genetics/biotech.)		
Lindberg, Lyle	(flax breeding)		
Luecke, John	(sugarbeet weed control)		





Graduate Students

Graduate Students and Advisors - Fall 2000/Spring 2001

Boehm, David	Berzonsky
Bruniard, Jose (Argentina)	Miller
Carvalho, Cesar (Brazil)	Lorenzen
Dai, Wenhao (PRC)	Cheng
Dale, Trevor	Dexter
Davies, John (Australia)	Berzonsky
Deibert, Ken	Lym
Erickson, Ann	Lym
Forster, Shana	Grafton
Fronning, Bradley	Kegode
Garcia, Gioconda (Ecuador)	Horsley
Gehlhar, Sarah	Kianian
Gelin, Robert (Haiti)	Elias
Hartel, Kirk	Berzonsky
Ingeman, Chad	Peel
Karhikeyan, Manju (India)	Franckowiak
Krashenninnik, Nadejda (Russia)	Franckowiak
Lamb, Kenneth	Johnson
Larson, Tim	Johnson
Liedberg, Jerad	Lorenzen
Lockhart, Sam	Howatt
Mahoney, Kris	Kegode
Melaas, Dan	Deckard
Moeller, Ryan	Meyer
Nelson, Eric	Kegode
O' Barr, John	Zollinger
Oltmans, Shannon	Zollinger
Otto, Carla	Kianian/Elias
Ringdahl, Chad	Messersmith
Roehl, Joel	Messersmith
Rojas, Gonzalo (Chile)	Lorenzen
Rothe, Ines (Germany)	Dexter
Saha, Malay (Bangladesh)	Lorenzen
Simons, Kristin	Kianian
Van Becelaere, Guillermo (Argentina)	Miller
Vignaux, Nathalie (France)	Kianian
Vincent, Don	Dexter
Walker, Richard	Messersmith
Wehking, Todd	Howatt
Yu, Guotai (China)	Franckowiak



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