

# Plant Sciences/Horticulture

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## Department Information

- **Department Head:**  
Richard Horsley, Ph.D.
- **Graduate Coordinator:**  
Edward Deckard, Ph.D.
- **Department Location:**  
166 Loftsgard Hall
- **Department Phone:**  
(701) 231-7971
- **Department Web Site:**  
[www.ag.ndsu.edu/plantsciences/](http://www.ag.ndsu.edu/plantsciences/) (<http://www.ag.ndsu.edu/plantsciences/>)
- **Application Deadline:**  
International applications are due May 1 for Fall and October 15 for Spring. Domestic applicants should apply at least one month prior to the start of classes.
- **Credential Offered:**  
Ph.D. (Plant Sciences only), M.S.
- **Test Requirement:**  
The GRE requirement is waived for the current admissions cycle.
- **English Proficiency Requirements:**  
TOEFL iBT 71, IELTS 6; Duolingo 100

## Faculty

### Nonoy Bandillo, Ph.D.

University of Nebraska-Lincoln, 2016  
Research Interests: Pulse Breeding, Genetics

### Marisol Berti, Ph.D.

North Dakota State University, 2007  
Research Interests: Forage and Biomass Crop Production

### Xiwen Cai, Ph.D.

Washington State University, 1998  
Research Interests: Wheat Genetics

### Bingcan Chen, Ph.D.

University of Massachusetts, 2012  
Research Interests: Cereal and Food Chemistry

### Michael J. Christoffers, Ph.D.

University of Missouri-Columbia, 1998  
Research Interests: Weed Science/Genetics

### David Wenhao Dai, Ph.D.

North Dakota State University, 2001  
Research Interests: Woody Plant Physiology, Biotechnology

### Edward L. Deckard, Ph.D.

University of Illinois, 1970  
Research Interests: Crop Physiology

### Elias M. Elias, Ph.D.

North Dakota State University, 1987  
Research Interests: Durum Wheat Breeding, Genetics

### Greta Gramig, Ph.D.

University of Wisconsin-Madison  
Research Interests: Weed Biology and Ecology

**Andrew J. Green, Ph.D.**

Kansas State University, 2016

Research Interests: Hard Red Spring Wheat, Genetics

**Harlene Hatterman-Valenti, Ph.D.**

Iowa State University, 1993

Research Interests: High-Value Crop Production

**Richard D. Horsley, Ph.D.**

North Dakota State University, 1988

Research Interests: Barley Breeding, Genetics

**Kirk A. Howatt, Ph.D.**

Colorado State University, 1999

Research Interests: Weed Science, Annual Weeds

**Joseph Ikley, Ph.D.**

Purdue University, 2018

Research Interests: Weed Control

**Burton L. Johnson, Ph.D.**

North Dakota State University, 1993

Research Interests: Crop Production

**Thomas J. Kalb, Ph.D.**

Virginia Polytechnic Institute & State University, 1988

Research Interests: Extension Horticulture

**Herman J. Kandel, Ph.D.**

North Dakota State University, 1995

Research Interests: Crop Production

**Chiwon W. Lee, Ph.D.**

Purdue University, 1977

Research Interests: Vegetables, Floriculture, Biotechnology

**Deying M. Li, Ph.D.**

Iowa State University, 2001

Research Interests: Sports Turf Management

**Xuehui Li, Ph.D.**

University of Georgia, 2009

Research Interests: Statistical Genomics

**Frank A. Manthey, Ph.D.**

North Dakota State University, 1985

Research Interests: Durum Wheat Quality, Pasta/Noodle Processing

**G. Francois Marais, Ph.D.**

North Dakota State University, 1979

University of Stellenbosch, 1992

Research Interests: Hard Red Winter Wheat Breeding, Genetics

**Phillip E. McClean, Ph.D.**

Colorado State University, 1982

Research Interests: Dry Bean Genetics, Biotechnology

**Esther E. McGinnis**

University of Minnesota, 2013

Research Interests: Extension Horticulture, Native Plants, Perennial Hardiness, Floriculture

**Michael S. McMullen, Ph.D.**

University of Minnesota, 1976

Research Interests: Oat Breeding, Genetics

**Carrie Miranda, Ph.D.**

University of Missouri, 2018  
Research Interests: Soybean Breeding, Molecular Genetics

**Rebekah Oliver, Ph.D.**  
North Dakota State University, 2006  
Research Interests: Genetics

**Juan Osorno, Ph.D.**  
North Dakota State University, 2006  
Research Interests: Dry Edible Bean Breeding

**Thomas Peters, Ph.D.**  
North Dakota State University, 1990  
Research Interests: Sugarbeet Agronomy, Weed Science

**Mukhlesur Rahman, Ph.D.**  
University of Manitoba, 2007  
Research Interests: Canola Breeding

**Jiajia Rao, Ph.D.**  
University of Massachusetts, 2013  
Research Interests: Food Chemistry, Ingredient Technology

**Andy Robinson, Ph.D.**  
Purdue University, 2012  
Research Interests: Potato Production

**Paul B. Schwarz, Ph.D.**  
North Dakota State University, 1987  
Research Interests: Malting Barley Quality

**Kalidas Shetty, Ph.D.**  
University of Idaho, 1989  
Research Interests: Food Safety

**Senay Simsek, Ph.D.**  
Purdue University, 2006  
Research Interests: Hard Spring Wheat Quality

**Asunta L. Thompson, Ph.D.**  
University of Idaho, 1998  
Research Interests: Potato Breeding

**Anuradha Vegi, Ph.D.**  
North Dakota State University, 2008  
Research Interests: Teaching Techniques

**Todd West, Ph.D.**  
Southern Illinois University, 2004  
Research Interests: Woody Plant Improvement

**Qi Zhang, Ph.D.**  
Kansas State University, 2007  
Research Interests: Turfgrass Stress Physiology

**Alan J. Zuk, Ph.D.**  
Kansas State University, 2005  
Research Interests: Sports and Urban Turfgrass Management

## **Adjunct and Affiliate**

**James V. Anderson, Ph.D.**  
Virginia Polytech Institute, 1990  
Research Interests: Plant Biochemistry

**James Beaver, Ph.D.**

University of Illinois, 1980  
Research Interests: Dry Bean Genetics

**David Bonnett, Ph.D.**  
University of Sydney, 1997  
Research Interests: Wheat Breeding

**Patrick M. Carr, Ph.D.**  
Montana State University, 1989  
Research Interests: Sustainable Agriculture

**Wun Shaw Chao, Ph.D.**  
University of California-Davis, 1996  
Research Interests: Perennial Weeds

**Munevver Dogramaci, Ph.D.**  
Cukurova University, Institute of Natural and Applied Sciences, Adana, Turkey/North Dakota State University, Fargo, ND, USA, 2000  
Research Interests: Sugarbeet and Potato Research

**Linda Dykes, Ph.D.**  
Texas A&M University, 2008  
Research Interests: Food Science and Technology

**Justin D. Faris, Ph.D.**  
Kansas State University, 1999  
Research Interests: Wheat Molecular Genetics

**Jason Fiedler, Ph.D.**  
Scripps Research Institute, 2012  
Research Interests: Cereal Crop Genetics

**Shana M. Forster, Ph.D.**  
North Dakota State University, 2017  
Research Interests: Crop Production

**Jose G. Franco, Jr., Ph.D.**  
Texas A&M University, 2015  
Research Interests: Agroecology, Sustainable Food Systems

**Karen L. Fugate, Ph.D.**  
Ohio State University, 1995  
Research Interests: Sugarbeet Physiology

**Russell Gesch, Ph.D.**  
Texas A&M University, 1995  
Research Interests: Physiology of Oilseed Crops

**Salvador Alejandro Gezan, Ph.D.**  
University of Florida, 2005  
Research Interests: Statistic and Quantitative Genetics

**Michael Grusak, Ph.D.**  
University of California-Davis, 1985  
Research Interests: Crop Nutrient Quality

**Yong Q. Gu, Ph.D.**  
University of California, Riverside, 1994  
Research Interests: Wheat Genetics

**Darrin Haagensohn, Ph.D.**  
Purdue University, 2001  
Research Interests: Crop Physiology and Ecology

**David P. Horvath, Ph.D.**  
Michigan State University, 1993

Research Interests: Perennial Weed Physiology

**Brent Hulke, Ph.D.**

University of Minnesota, 2007

Research Interests: Flax and Sunflower Genetics

**Brian Jenks, Ph.D.**

University of Nebraska, Lincoln, 1996

Research Interests: Integrated Weed Management

**Blaine Johnson, Ph.D.**

University of Nebraska, 1986

Research Interests: Quantitative Genetics

**Edward C. Lulai, Ph.D.**

North Dakota State University, 1978

Research Interests: Potato Physiology

**Kevin McPhee, Ph.D.**

University of Idaho, 1995

Research Interests: Pulse Crops

**Grant Mehring, Ph.D.**

North Dakota State University, 2016

Research Interests: Agronomy; Wheat and Corn Research

**Mohamed Mergoum, Ph.D.**

Colorado State University, 1991

Research Interests: Hard Red Spring Wheat Breeding

**Jae-Bom Ohm, Ph.D.**

Kansas State University, 1996

Research Interests: Grain Science

**Michael Ostlie, Ph.D.**

Colorado State University, 2012

Research Interests: Weed Science

**Timothy Porch, Ph.D.**

Cornell University, 2012

Research Interests: Dry Bean Breeding and Genetics

**Gautam Pradhan, Ph.D.**

Kansas State University, 2011

Research Interests: Crop Physiology

**Lili Qi, Ph.D.**

Nanjing Agricultural University, 1997

Research Interests: Wheat Genetics

**Calvin Trostle, Ph.D.**

Texas A&M, 1996

Research Interests: Row Crops, Peanut, Alfalfa

**Gerald J. Seiler, Ph.D.**

North Dakota State University, 1980

Research Interests: Sunflower and Sugarbeet Germplasm

**Thomas Walk, Ph.D.**

Pennsylvania State University, 2005

Research Interests: Plant Physiology, Statistics

**Jochum Wiersma, Ph.D.**

University of Minnesota, 1995

Research Interests: Small Grains

**Steven S. Xu, Ph.D.**

North Dakota State University, 1994

Research Interests: Hard Red Spring Wheat Development

**Shengming Yang, Ph.D.**

North Dakota State University, 1994

Research Interests: Hard Red Spring Wheat Development