THE GRADUATE SCHOOL | MONTANA STATE UNIVERSITY

Plant Science & Plant Pathology

- **M.S. in Plant Science**
- **M.S. in Plant Pathology**
- **M.S. in Biological Sciences**
- **Ph.D. in Biological Sciences**

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The Department of Plant Sciences and Plant Pathology is part of the College of Agriculture at Montana State University in Bozeman. Graduate students can choose advanced work for a Master of Science degree in either Plant Sciences or Plant Pathology, or a Doctor of Philosophy degree in Plant Sciences with options in either Plant Pathology or Plant Genetics.The department also participates in the inter-departmental Entomology Program, offering a Master of Science in Entomology.

The department has state-of-the-art laboratory and plant-growth facilities. Student and faculty researchers have access to seven research centers distributed across the state of Montana. Our faculty is involved in both teaching and research which gives students the benefit of hands on experience in the laboratory in addition to their time in the classroom. We excel in designing a program of study that will meet each student's needs and prepare them for a professional career.

An entering graduate student is expected to have a solid background in the basic sciences and a background equivalent to that provided by the undergraduate curriculum at Montana State University-Bozeman in the corresponding area of study.

The Department of Plant Sciences and Plant Pathology at Montana State University-Bozeman offers unique research strengths for graduate students, including 1) the biology, genetics and biochemistry of diseases of small grains, fungal products and the biological control of weeds and pathogens; 2) plant breeding and genetics emphasizing both traditional and molecular approaches; and 3) plant molecular biology and molecular genetics.

M.S. PLANT SCIENCES OPTION

The Department conducts research programs in: cereal quality, cropping systems/specialty crops, molecular and conventional approaches to plant improvement. Faculty have expertise in molecular genetics, plant breeding and genetics, cereal quality, cytogenetics, biochemistry, plant physiology and agronomy.

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M.S. PLANT PATHOLOGY OPTION

Most research projects are problem oriented and pertain to major plant pathological problems in the state. Currently active research projects involve soil-borne diseases of cereals, genetic basis for disease resistance in field crops, cereal leaf spots, virus diseases of cereals and potatoes, bacterial diseases, and the biochemistry and molecular genetics of plant disease. Additional current research projects pertain to the biocontrol of plant diseases and the biocontrol of weeds using plant pathogens and/or their toxins. Department research projects employ modern molecular biological and biotechnological techniques as well as traditional plant pathological techniques.

PhD in PLANT SCIENCES - PLANT PATHOLOGY OPTION

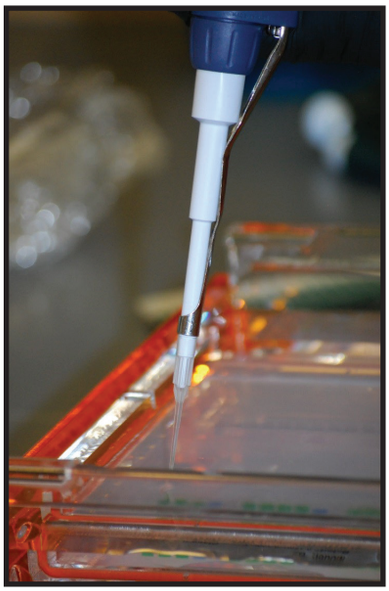
Many research projects are problem-oriented and pertain to major plant pathological problems in the state. Currently active research projects involve soil-borne diseases of cereals, genetic basis for disease resistance in fi eld crops, cereal leaf spots, virus diseases of cereals and potatoes, bacterial diseases and the biochemistry and molecular genetics of plant disease. Additional current research projects pertain to the biocontrol of plant diseases and the biocontrol of weeds using plant pathogens and/or their toxins. Department research projects employ modern molecular biological and biotechnological techniques as well as traditional plant pathological techniques.

PhD in PLANT SCIENCES - PLANT GENETICS OPTION

The department offers advanced study leading to a Ph.D. degree in Plant Genetics with supporting minors. The Department conducts research programs in: cereal quality, cropping systems/specialty crops, molecular and conventional approaches to plant improvement. Faculty have expertise in molecular genetics, plant breeding and genetics, cereal quality, cytogenetics, biochemistry, plant physiology and agronomy.

FINANCIAL ASSISTANCE

Graduate research assistantships for master's degree and doctoral degree students are available from several sources including state, farm commodity groups, and federal grants. For information, contact the department.



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