

# Ph.D. in Plant Sciences

To learn about the Plant Sciences & Plant Pathology program at MSU, please review the department graduate pages: <http://plantsciences.montana.edu/studentinfo/grad/index.html>. (<http://plantsciences.montana.edu/studentinfo/grad/>)

## **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 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.

## **Plant Genetics Option**

The Department offers advanced study leading to a Ph.D. degree in Plant Genetics with supporting certificates. Thesis research problems are related to the diverse research projects of the faculty.

The Department conducts research programs in: cereal quality; cropping systems/specialty crops; molecular and conventional approaches to plant improvement; and the interaction of introduced plants on native plant biodiversity. Faculty have expertise in molecular genetics and genomics, plant breeding, cereal quality, horticulture, biochemistry, plant physiology, agronomy, and plant ecology and evolution.