



Degree Information

Plant Pathology is assuming an even greater role in today's agriculture as the world's need for high quality, safe and economical food increases exponentially. Texas A&M offers a comprehensive curriculum in plant pathology that prepares students for a broad range of job opportunities.

Our graduates are involved in all aspects of plant pathology, including **plant disease resistance, genomics, molecular aspects of plant-microbe interactions, and field strategies for disease management**. The department is comprised of nationally and internationally known faculty recognized for a wide range of expertise in plant pathology and plant microbiology. The department also includes faculty in the **Institute for Plant Genomics and Biotechnology** located in the Norman Borlaug Center. If you are a motivated student interested in a challenging first rate educational experience, we look forward to hearing from you! You will be joining a highly diverse and enthusiastic group of students.

Recent former graduates have accepted research positions at prestigious institutions, such as the University of California, Cornell University, and MIT. Former students have academic research, extension, teaching or administrative appointments at various universities in the nation and worldwide, as well as with government agencies and global companies. Several former students also hold positions at international agricultural institutes such as CIAT, ICRISAT, and CIMMYT.

Plant Pathology & Microbiology at Texas A&M offers a Doctoral (Ph.D.) and a Masters (M.S.) degree.



**AGRICULTURE
& LIFE SCIENCES**
TEXAS A&M UNIVERSITY

**Graduate
Studies** in

**Plant
Pathology**

**MS
PhD**

**Department of Plant
Pathology and
Microbiology**

Examples of Graduate Student Research:

- Biochemical characterization of RNAi and its suppression by virus proteins.
- Mycotoxin production and control by *Aspergillus flavus* and *Fusarium verticillioides*
- Cross-kingdom lipid-based signaling processes that determine the outcome of plant-microbe interactions.
- Microscopic, genetic, and biochemical analyses to study developmental processes of *Aspergillus nidulans*.
- RAPD markers as a system for differentiating isolates of *Colletotrichum* species on sorghum.
- Molecular interactions that govern the biocontrol properties of *Trichoderma virens*.
- Novel technologies for control of rice diseases.
- Multiplexed gene editing and protein overexpression in plants using plant virus viral vectors
- Disease ecology and evolution; vector-borne disease epidemiology, risk modeling and assessment
- Analysis and biotechnological application of novel protein and DNA transport between bacteria and plants.
- Bioinformatics, computational modeling and molecular analysis of plant-microbe interactions.
- Enzyme-structure analysis for improving biofuel biomolecule production.
- Transgenic manipulation of plant apoptosis.

Admission

Requirements include an enthusiasm for science, good academic credentials, letters of recommendation, and GRE scores (plus TOEFL for foreign students). Please visit our website regarding information on pre-applications and full applications: <http://plantpathology.tamu.edu/>. Also, feel free to contact the chair of our

recruiting committee, **Dr. Daniel Ebbole** (d-ebbole@tamu.edu). The deadline for submitting applications is February 1, but early application is recommended. Applications are reviewed on an individual basis.

Distinguished Faculty

Plant Pathology & Microbiology faculty research and extension efforts are supported by grants, from multiple sources, including NIH, NSF, DOE, DOD, EPA, USDA, US-AID, Industry, State grant programs, and from various growers and commodities.

Extensive Facilities

Students have access to state-of-the-art laboratories and equipment, including fluorescent and confocal microscopes. Core facilities are available for high throughput genomics, proteomics, crop biotechnology, electron microscopy, and bioinformatics. The university library system has electronic access to research journals, and high-speed wireless is available campus-wide.

Financial Support

The department offers competitive teaching assistantships. Research assistantships are available through individual faculty members. Additionally, there are opportunities for funding through college and university fellowships. Assistantships include health insurance benefits.

Contact Information

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<http://plantpathology.tamu.edu/>



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