Graduate Research Assistantship

Purdue University
Department of Agronomy

Graduate Assistantship Announcement
in Plant Breeding and Genetics

Project title: Genetics of, and breeding for, Fusarium head blight resistance in wheat

Project description: A graduate research assistantship is available in the wheat breeding and genetics program in the Department of Agronomy at Purdue University. The project has two components. First, the wheat breeding program at Purdue has previously developed and evaluated biparental mapping populations aimed at mapping FHB resistance. These biparental mapping populations, however, were genotyped using low-density microsatellite markers. The objective of this project is to re-genotype these populations using genotyping-by-sequencing (GBS) to generate denser molecular marker maps. Second, breeding populations, resulting from gene pyramiding efforts, are available within the program that are segregating for type I and type II FHB resistance loci. During this project, these populations will be phenotypically and genetically evaluated for FHB resistance and important agronomic traits for the goal of developing and identify advanced breeding lines that could be nominated for our advanced yield trials and used as parents for subsequent breeding populations.

Requirements: Knowledge of genetics, plant biology, and statistics is required. Both M.S. students and Ph.D. students will be considered. Students must be willing to work in laboratory, greenhouse, and field environments. The primary sites of research will be the Department of Agronomy and Agronomy Center for Research and Extension (ACRE) at Purdue University in West Lafayette, IN.

Salary, starting date: Stipend is $20,294 for MS students and $20,928 for PhD students. The start date is negotiable.

Applications: Interested persons should send a letter of interest, CV, copies of college transcripts, and the names and contact information for three individuals who can be contacted as reference in a single PDF document to Dr. Mohsen Mohammadi
mohamm20@purdue.edu.

Deadline: Until a suitable applicant is identified.