Graduate Research Assistantship

Purdue University
Department of Agronomy

Graduate Assistantship Announcement
in Plant Breeding and Genetics

Project title: Genetics of Hessian fly resistance in wheat

Job description: A graduate research assistantship is available in the wheat breeding and genetics program in the Department of Agronomy at Purdue University. The Hessian fly, *Mayetiola destructor* (Say), is one of the most destructive insect pests of wheat in the United States. Resistant wheat varieties can effectively reduce the damage caused by the Hessian fly. Two sources of Hessian-fly resistance have been identified in durum wheat, which to date have not been commercially deployed in soft red winter wheat germplasm. The research objectives include:

- develop QTL mapping resources using phenotyping and genotyping-by-sequencing
- map QTL for Hessian fly resistance (i.e. R genes)
- transfer R genes into commercial cultivars via wide crosses
- develop global transcriptional profiles of wheat lines infested by the Hessian fly

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 the USDA-ARS Crop Production and Pest Control Research Unit on the Purdue campus 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.