Fostering World-Class Leaders in Agronomic Research

The ISU Agronomy Department has a unique graduate research training fellowship program for superior students. The program provides students financial support as they work towards a Ph.D. and exceptional academic support through a mentored team training program coupled with specific guidance from a primary research advisor. The Research Training Fellowships are competitively awarded.

The Next Level of Graduate Studies

The Research Training Fellowship program offers students a whole new level of mentoring and interdisciplinary collaboration opportunities.

- Research mentoring |
  The student and primary advisor develop a strong mentoring relationship through common interests in research. This relationship will be initiated through a carefully developed research plan. It will be sustained and strengthened by the execution of team-focused research and training.

- Mentoring in teaching and/or extension |
  A second mentoring relationship, focused on teaching or extension, provides the student with broader exposure to additional areas of agronomy as part of the agronomy teaching practicum.

- Peer mentoring and interaction |
  Research Training Fellowship recipients meet regularly to share their personal experiences and research. The students decide the format and venue – monthly lunch or dinner meetings, a seminar series directed by the students, or some other gathering of their choosing.

- Work Groups |
  Faculty and students form research-themed work groups that meet regularly to discuss current research issues.

- External experience |
  Each student will be encouraged to spend a minimum of one semester outside of the Department of Agronomy. This could include participating in another research program on campus, performing the duties of a teaching assistant in a non-Agronomy course, taking academic classes at another university, performing research at a government laboratory or working in industry.

- Ethics and Professionalism training |
  Considerations of natural resource and research ethics are part of the student training experience.

Extra Stipend

- Students who qualify for the Research Training Fellowship receive an annual stipend equivalent to a half-time assistantship plus an additional 33% (total of $26,667). Benefits, tuition, and fees are also provided by the fellowship.
External Funding Proposal Experience

The Fellowship is a two-year commitment from the Iowa State University Department of Agronomy. During that time, the primary research advisor and the student work together to fund the balance of the student’s graduate career either through a research grant or an external fellowship.

Project Highlights:

Pollen Dispersion Modeling
As a Ph.D. student in the Agricultural Meteorology program, Brian Viner wrote a grant proposal and received funding for his research to predict when corn will pollinate and how this is affected by weather and the topography of the land. He is developing computer models to make his predictions. Viner also has a second project researching how regions with mountains and valleys influence local weather and affect pollen dispersion. He is currently continuing his research as a postdoctorate at Iowa State University.

“My work in predicting pollen release and movement will help lead to more accurate predictions of which non-target fields may be at risk of pollination from genetically modified crops and assist in creating isolation strategies to confine pollen to its source fields.”
– Brian Viner

Native Polyculture for Biomass Production
Meghann Jarchow is pursuing her Ph.D. in Sustainable Agriculture, an interdisciplinary degree joining agronomy with evolutionary and environmental biology. Her research, part of a larger biomass systems project, explores the effects of nitrogen on diverse prairie systems, measuring yield, diversity over time, and soil quality characteristics.

Jarchow received a grant to produce an extension publication explaining multiple ways prairies can be used in an agricultural production landscape. She is also the recipient of a STAR Graduate Fellowship from the Environmental Protection Agency.

“My research is about communities - how plants interact with each other and the environment they grow in. It focuses on biofuel cropping systems that can benefit the environment and be profitable.”
– Meghann Jarchow