Monsanto/University of Minnesota Multifunctional Agriculture Initiative Graduate Student Assistantships

Request for research proposals and graduate student nominations:

Monsanto has agreed to continue their investment in the Multifunctional Agriculture Initiative that supports graduate student education in CFANS at the University of Minnesota. Monsanto has agreed to fund four new Graduate Research Assistantships, each for a period of three years. Please review the research priorities listed below that the program would like to have graduate students address over the next three years. Students interested in working on one of the research priorities listed below should contact University of Minnesota faculty members to express their interest in being nominated for one of the Graduate Research Assistantships. Faculty are encouraged to develop graduate student research projects designed to address the research priorities. Please send Donald Wyse at wysex001@umn.edu a two-page research proposal, along with a two page nomination of a graduate student that would conduct the research by Monday February 16, 2015. Along with the student nomination, please submit two letters of reference, transcripts, and the student’s application statement. The Multifunctional Agriculture Initiative Executive Committee, made up of University of Minnesota Faculty and Monsanto Personnel, will review and prioritize the research projects and graduate student nominations. The results of the review will be sent to everyone that submitted a research proposal and graduate student nomination by March 1, 2015 or earlier. If a student declines an offer on an approved project the faculty member can nominate another student for the research project for approval by the Executive Committee.

Research Priorities for the Monsanto-University of Minnesota Fellows Entering Fall Semester 2015:

- Develop systems (including multiple herbicide MOAs and cultural practices) for controlling herbicide resistant weeds (especially glyphosate resistant weeds)
- Develop integrated systems for controlling corn rootworms (CRW) that include CRW traits, insecticides and cultural practices
- Develop biologicals (microbials, microbial and plant extracts) for pest control and/or plant health
- Evaluate use of fungicides (seed treatment and/or foliar) in corn and soybean to enhance yield potential
- Develop cover systems for corn and soybean with a focus on:
  - Cover crop establishment
  - Cover crop termination
  - Nutrient capture and transfer
  - Cover crop germplasm development
  - The economics of cover cropping and how to make cover crops cost-effective
  - Enhancing crop yield with cover crops
- Precision agriculture applications
  - Enhancing crop yields with site specific agricultural systems (germplasm selection, crop densities, fertility etc.)
- Site specific pest management (weeds, insects, disease)
- Evaluate how to communicate the benefits of modern (technology based) agriculture
  - Explore methods of communication with the consuming public to facilitate a better understanding of the value of high-productivity agriculture
- The program also encourages the submission of proposals that deal with other important disease, insect, and weed problems, as well as other issues important to the enhancement of the yield potential of corn and soybean.