

# Graduate students' work wins kudos

Three graduate students in the College's Department of Plant and Soil Sciences have won major awards for their research.

Kristin Staats and Amy Shober received the J. Fielding Reed Fellowship from the Potash and Phosphate Institute, and Jennifer Gilbert was awarded the L.R. Ahuja Agricultural Systems Modeling Fellowship from the Soil Science Society of America.

Staats is completing her master's degree this summer in environmental soil chemistry under the direction of Donald Sparks, S. Hallock du Pont Chair of Agriculture and Natural Resources and plant and soil sciences department chairperson. Since her sophomore year, Staats has been studying phosphate, particularly in the field of nutrient management, which plays a significant role in how farmers conduct business.



Jennifer Gilbert



Amy Shober



Kristin Staats

"Agriculture is an integral part of our health as a nation," Staats says. "Answering questions that can improve crop production and waste management will dramatically improve this sector of our economy, as well as mitigate the environmental impacts of agricultural practices."

Shober, who is in her third year of doctoral work, is studying environmental soil chemistry, specifically the chemistry and


cycling of phosphorus in the environment.

Her adviser is Tom Sims, T. A. Baker Professor of Plant and Soil Sciences and the College's associate dean for research and academic programs. Shober is conducting research to determine how the chemical forms of phosphorus in animal manure and municipal biosolids affect the potential for phosphorus pollution of ground and surface waters.

"My major goal will be to

enhance agricultural productivity while minimizing negative environmental impacts," she says.

Gilbert, also advised by Sims and a doctoral student in soil chemistry and nutrient management, is conducting research on controlling phosphorus pollution from agricultural lands to surface waters through the use of vegetated filter strips (VFS).

"My research involves using my laboratory and greenhouse studies to improve a widely used computer model developed to predict how management practices can prevent nonpoint pollution of surface waters," she says. "That will allow us to design more efficient VFS and better determine where to place them in agricultural landscapes so that water quality protection is maximized." 

—Christina Hernandez, AS '06