Five Graduate Students Receive "J. Fielding Reed PPI Fellowships"

FIVE outstanding graduate students have been announced as the 1993 winners of the "J. Fielding Reed PPI Fellowships" by the Potash & Phosphate Institute (PPI). Grants of \$2,000 each are presented to the individuals. All are candidates for either the Master of Science (M.S.) or the Doctor of Philosophy (Ph.D.) degree in soil fertility and related sciences. The 1993 recipients were chosen from nearly 40 applicants who sought the Fellowships. The five are:

- Thomas W. Bruulsema, Cornell University, Ithaca, New York;
- Kevin L. Harner, Purdue University, West Lafayette, Indiana;
- David F. Hughes, University of Missouri, Columbia;
- Bryan A. Kliewer, North Carolina State University, Raleigh;
- Karen Lowell, University of Maryland, College Park.

Funding for the Fellowships is provided through support by potash and phosphate producers who are member companies of PPI.

"Each year, we have the privilege of presenting this recognition. All of the applicants for the Fellowships have excellent credentials," noted Dr. David W. Dibb, President, PPI. "The individuals selected and their educational institutions can take pride in the level of achievement represented."

Scholastic record, excellence in original research, and leadership are among the important criteria evaluated for the Fellowships. Following is a brief summary of information for each of the winners:

Thomas W. Bruulsema was born in Hamilton, Ontario, Canada. He received his B.S. in Agriculture, Honours Program, with Distinction, University of Guelph. He also holds an M.S. degree from that institution and is presently working toward a Ph.D. degree at Cornell Univer-

sity. The objective of his doctoral research is to gain a better understanding of nutri-

ent cycling within the soil-crop
system. He will
make use of field
data, with wheat
and corn as test
crops, to develop
comprehensive,
dynamic computer models
to better define
the relationships
between soil



Thomas W. Bruulsema

nitrogen forms and transformation processes occurring in the soil-crop system. He hopes to use field data and computer models to develop a quantitative soil test for nitrogen, as well as improve tests for nutrients such as phosphorus. Tom is described by one of his Cornell professors as "...being an independent thinker, an extremely capable researcher and someone who clearly can make a mark in his chosen field."

Kevin L. Harner was born in Bedford, IN. He received his B.S. degree at Purdue University in 1991 and is presently in an

M.S. program, also at Purdue. He was chosen as the outstanding senior in agronomy, was the recipient of the Continental Grain scholarship, among others, and was a Distinguished Student seven of his eight



Kevin L. Harner

undergraduate semesters. His thesis title is "Presidedress Soil Nitrate Test as Basis for Nitrogen Recommendations on Corn in Indiana." The main objectives of his research are to develop correlation and calibration data for the test, based on climatic conditions, soil types and management practices common to Indiana.

Making use of soil and tissue sampling and a chlorophyll meter, Kevin hopes to develop recommendations based on a broad data base. After completing his M.S. degree, he plans a career in field crop research or agronomic services in the seed or fertilizer industry.

David F. Hughes is a native of Richmond, VA. He earned B.S. and M.S. degrees from Brigham Young University

(BYU) where he served as President of the Agronomy Club. Among his honors at BYU was the selection of his research for the outstanding M.S. thesis award by the BYU Sigma Xi Scientific Research Society. He is in



David F. Hughes

the first year of his Ph.D. program at the University of Missouri. His dissertation research will be conducted as a part of the Missouri Management Systems Evaluation Area (MSEA) water quality project. His work will focus on the assessment of the impacts of conventional and alternative systems in Missouri on grain production, nitrogen use efficiency and nitrogen losses over claypan landscapes. Following his graduate study, David hopes to serve as an ASA-CSSA-SSSA Congressional Fellow. He plans a career in soil fertility research and instruction, is interested in international work and, eventually, land grant university administration.

Bryan A. Kliewer is working toward his M.S. degree at North Carolina State University. Born in Henderson, NE, he received his B.S. degree from the University of Nebraska-Lincoln. He has won many honors, including the Westinghouse Talent Search award, being one of only 40 students in the U.S. selected who were 'best fitted for promising careers in science.' The title of his thesis is "Response of Soil Denitrification Rates to Water Table Management." The objective of his research is to quantify denitrification losses associated with water table management and to evaluate the time-course

behavior of nitrous oxide emissions from poorly drained soils managed with water

control structures. Bryan places strong emphasis on scholarship and, as a scholar, plans to pursue further graduate work, then a career in soil fertility and groundwater management and conservation.



Bryan A. Kliewer

Karen Lowell completed her undergraduate study at Allegheny College in Meadville, PA; she is currently in the

second year of an M.S. program in Agronomy at the University of Maryland. After her undergraduate studies, she served as a Peace Corps volunteer in Sierra Leone, West Africa. Her work there as an agriculture extension



Karen Lowell

agent led to interests in soil fertility and ways in which research and technology from developed nations can be of use in the developing world. Her thesis is titled "Use of Reduced S to Enhance Bioavailability of P in Phosphate Rock."

The Fellowship winners are selected by a committee of PPI scientists. The Fellowships are named in honor of Dr. J. Fielding Reed, retired President of the Institute, who now lives in Athens, GA.

Dr. W.R. Thompson, Jr., PPI Midsouth Director, again served as chairman of the selection committee for the 1993 Fellowships. "The 1993 group had perhaps the highest percentage of top quality applications that we have seen in recent years. The current applicants and winners are among the most deserving in all the years the Fellowships have been awarded, beginning in 1980," he stated.