2008 Roscoe Ellis, Jr. Lecturer

Dr. David Kissel
Professor and Director of the Agricultural and Environmental Services Laboratory
University of Georgia
Athens, GA

Dr. Kissel earned his B.S. degree in Agronomy (Soil Science) from Purdue University in 1965 and his M.S. and Ph.D. from the University of Kentucky in 1967 and1969. He was at the Texas Agricultural Experiment Station in Temple, TX from 1969-1978. From 1978-1988, Dr. Kissel was a Professor at Kansas State University. Since 1989, he has been at the University of Georgia, Crop and Soil Sciences, as Professor, Head, Division Chair, and most recently Director of the Agricultural and Environmental Services Lab. Dr. Kissel teaches an advanced soil fertility course.

In 1995 Dr. Kissel served as President of the Soil Science Society of America. He has been Associate Editor for the Jouranl of Environmental Quality and Fertilizer Issues Journal, Co-Editor of the book "Ammonia Volatilization from Urea Fertilizers, Editor-in-Chief of the Soil Science Society of America, and Editor of the Soil Science Society of America Journal.

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Dr. Kissel is a Fellow of the American Society of Agronomy, Soil Science Society of America, and American Association for the Advancement of Science. The Potash and Phosphate Institute named Dave Kissel the Robert E. Wagner Senior Scientist Awardee in 2006.

Much of Dr. Kissel's research has dealt with crop response to nitrogen fertilizer rates and placement, as well as understanding components of the nitrogen cycle, including those that affect loss of nitrogen from the soil. His studies of ammonia volatilization have focused on understanding individual soil and environmental factors that control the rate of ammonia loss from surface applied nitrogen fertilizer in both agricultural and forestry systems.

His nitrogen mineralization studies have focused on understanding the soil, crop residue, and environmental factors responsible for determining the amount of plant available nitrogen that becomes available to crops.

Dr. Kissel has used aerial imagery to quantify and map the spatial variation of soil organic carbon. Because the nitrogen and carbon cycles are linked, these maps might potentially be used for mapping the spatial variation of nitrogen availability in crop production fields.

Since 2001, Dr. Kissel has studied soil chemical methods used in the determination of the lime requirement of acid soils. Studies have focused on the use of a simple titration procedure for determining the lime requirement of acid soils. This procedure has been implemented and is presently being used for the routine determination of lime requirement of acid soils at the University of Georgia Soil, Plant, and Water Laboratory.

Roscoe Ellis, Jr. Lecturers

1984: Boyd Ellis, Michigan State, Soil Chemisty
1985: Larry Wilding, Texas A&M, Soil Classification
1986: Fred Adams, Auburn, Soil Fertility/Chemistry
1987: Don Nielsen, UC Davis, Soil Physics
1988: Joe Ritchie, Michigan State, Soil Water Management
1989: Jim Tiedje, Michigan State, Soil Microbiology
1990: Terry Logan, Ohio State, Soil Water Chemistry
1991: John Mortvedt, TVA, Soil Chemistry
1992: Larry Murphy, PPI, Soil Fertility
1993: Peter Wierenga, Arizona, Soil Physics
1994: Al Page, UC Riverside, Soil Chemistry
1995: John Norman, Wisconsin, Environmental Biophysics
1996: Willard Lindsay, Colorado State, Soil Chemistry
1997: Peter Bottomley, Oregon State, Soil Microbiology
1998: Tom Sims, Delaware, Soil Chemistry
1999: Rufus Chaney, USDA-ARS, Environmental Chemistry
2000: Gyles Randall, Minnesota, Soil Fertility
2001: Kevin McSweeney, Wisconsin, Pedology
2002: Kate Scow, UC Davis, Soil Microbial Ecology
2003: Hugo Rogers, USDA-ARS, Plant Physiology
2004: Donald Sparks, Delaware, Soil Chemistry
2005: Ray Weil, Maryland, Soil Science
2006: Ed Gregorich, Canada, Soil Biochemistry
2007: Andrew Sharpley, Arkansas, Soil Chemistry
2008: David Kissel, Georgia, Soil Fertility

Roscoe Ellis, Jr.

Roscoe Ellis began a career of contributions to science and society at Kansas State University as an instructor in 1949. After completing his Ph.D. degree at the University of Wisconsin in 1954, he resumed teaching and research responsibilities in the Department of Agronomy at Kansas State University. His career was marked by numerous scientific achievements up to his untimely death in 1982.

Roscoe became a highly respected soil chemist through his research in clay mineralogy, soil phosphorus and micronutrient chemistry. He researched the quantification of clay minerals in mixtures and greatly expanded knowledge on the mineralogy and chemistry of Kansas soils. His studies on the interaction of phosphorus and zinc chemistry in soils advanced theoretical horizons and provided practical implications for fertilizer management on Kansas farms.

Dr. Ellis's characterization of zinc levels in Kansas soils led to the development of a zinc soil test procedure. That test was used to determine when responsive additions of zinc fertilizer could be recommended.

Dr. Ellis advanced the frontiers of knowledge in soil phosphorus chemistry through a variety of research studies. Perhaps his most significant work investigated the complexity of polyphosphate reactions in soils and their conversion to the plant available orthophosphate form. These studies advanced both the theoretical aspects of polyphophate chemistry and the adaptation of polyphosphate use in crop production.

Dr. Ellis was highly sought after to partnership in studies involving soil chemistry. His cooperative studies with the USDA on soil and environmental factors causing magnesium deficiency in cattle (grass tetany) led to a better understanding of this significant problem.

Dr. Ellis mentored 32 graduate students and their efforts resulted in 45 scientific publications. He served his profession as Associate Editor of both the Agronomy Journal and Soil Science Society of America Journal, Soil Chemistry Program Chairman in 1962 for the Soil Science Society of America, and in 1979 he was named Editor-in-Chief of the Soil Science Society of America Journal.

Dr. Ellis's career as a preeminent teacher, researcher and person provided an excellent example for all. He was recognized with memberships in the honor societies of Phi Kappa Phi, Sigma Xi, Gamma Sigma Delta, and Pi Mu Epsilon and as a Fellow of both the Soil Science Society of America and American Society of Agronomy.

Roscoe Ellis, Jr. Lectureship

Roscoe Ellis, Jr.

The Roscoe Ellis, Jr. Lectureship was established to advance soil science at Kansas State University by attracting prominent scholars to interact with students and faculty.

The lectures honor the career of Dr. Ellis and commemorate his many years of outstanding service to his students, Kansas State University, and the soil science community. His dedication, knowledge and helpfulness influenced many in their educational and scientific pursuits.

Donations by family, friends, and associates of Dr. Ellis in excess of $10,000 endowed the Lectureship Fund with the Kansas State University Foundation. Income from this endowment supports expenses associated with providing this annual lectureship, but additional support is needed.

Please consider enhancing this fund so future soil scientists can continue benefiting from this lectureship. Your contributions and inquiries are encouraged and may be sent to:

Roscoe Ellis Lectureship
Department of Agronomy
2004 Throckmorton Hall
Kansas State University
Manhattan, KS 66506

Twenty-fifth
Annual

Roscoe Ellis, Jr. Lectureship in SOIL SCIENCE

"Managing Soil and Fertilizer Nitrogen for Crop Productivity and Environmental Risk."

By Dr. David Kissel

Professor and Director of the Agricultural and Environmental Services Laboratory
University of Georgia

4:00 p.m., Wednesday, February 27, 2008

1018 Throckmorton Hall
Kansas State University
Manhattan, KS

Refreshments @ 3:30 in TH 1013