

**Name:** David E. Kissel



**Rank :** Professor and Director, Agricultural and Environmental Services Laboratories

% Salary Budgeted: Instr. 1.7 Res. 15.2  
Ext. 80.2 (this part is budgeted through Dept 387)

**Program Overview:** Serves as Director of the Agricultural and Environmental Services Laboratories (AESL). These laboratories provide soil, plant, water, feed, and waste analysis for clients throughout the state and for faculty at UGA. The labs also employ undergraduate students, carry out research to improve analytical procedures and the delivery of recommendations to clients served by the laboratories. Presently, two graduate students in Crop and Soil Sciences are supervised out of the laboratories.

<b>Education</b>	B.S.A. Agronomy (Soil Science)	Purdue University	1965
	M.S. Soil Science	Univ. of Kentucky	1967
	Ph.D. Soil Science	Univ. of Kentucky	1969

**Employment** Prof. & Director, Agric.& Environ. Services Labs, UGA, June 2000 to present  
Professor, Dept. Crop & Soil Sci. UGA, Sept 1996- May 2000  
Professor & Head, Crop & Soil Sciences, UGA, Jan.1989-Sep.1996, Div Chr. Sept 1989- 1993  
Professor, Kansas State University, June 1978 – December 1988.  
Assoc Prof & Assist Director Research, Blackland Research Ctr, Texas A&M, Sept 1977 - June 1978.  
Associate Professor, September 1, 1973 - September 1, 1977.  
Assistant Professor, TAES, November 1,1969-1973.

### **Membership in Professional Societies**

American Society of Agronomy  
Soil Science Society of America  
International Union of Soil Science  
Soil Science Society of Georgia  
American Association for the Advancement of Science

### **Awards**

Fellow of the American Society of Agronomy, 1985  
Fellow of the Soil Science Society of America, 1986  
Fellow of the American Association for the Advancement of Science, 1995  
Robert E. Wagner Senior Scientist Award, Potash and Phosphate Institute, 2006

### **Contributions to Teaching**

(1)	Undergraduate			
	Course #	Title	Times taught (Sp & Fall)	Avg. # of Students
	CRSS 4375	GIS Appl in Agric	Fall	5
(2)	Graduate			
	Course #	Title	Times taught (Sp & Fall)	Avg. # of Students
	CRSS 6375	GIS Appl in Agric	Fall	5

- CRSS 8520 Adv. Soil Fertility Spring 4  
 GIS course last offered Fall 2004; Adv Soil Fertility last offered formally in Fall 1999.
- (3) Service on Graduate Advisory Committees  
 Degree (MS/Ph.D) Involvement (member/chair)  
 MS

**Contributions to Research and Other Creative Activities**

- No. of books-0  
 No. of book chapters-2  
 No. of refereed papers/by journal-8/Soil Science Society of America Journal, 4 /Nutrient Cycling in Agroecosystems, 3/Journal of Environmental Quality, 2/Communications in Soil Science and Plant Analysis, 2/Journal of Applied Poultry Research, 1/Journal of Soil and Water Conservation  
 No. of proceedings papers-6  
 No. of abstracts- 38  
 No. of Patents/PVPs- 1 patent pending  
 Other activities

**Contributions to Extension**

- Administer the Agricultural and Environmental Services Laboratories with 25 staff and three faculty.  
 Support program development of three faculty at the Agricultural & Environmental Serv. Labs.  
 Developed with faculty in Horticulture, Crop and Soils, and at AESL approximately 25 new crop codes for soil test interpretation.  
 Worked with IT staff and faculty at AESL to upgrade data management and data transfer programs of the AESL.  
 Numerous presentations to clients associated with fertilizers and plant nutrition.  
 Developed and implemented with students and other faculty totally new automated protocols for soil pH and lime requirement of soils.  
 Worked with AESL faculty and IT staff to simplify soil reports to homeowners.  
 Published three Extension Circulars dealing with soil and water tests and reporting.

**Sources of Grants/amounts**

NASA Space Grant Precision Farming	\$54,500
USEPA 319 Grant on Precision Agriculture	309,650
Potash and Phosphate Institute	6,000
Georgia Plant Food Educational Society	16,000
Governors Traditional. Ind., Pulp and Paper	134,000
Pulp and Paper Companies	<u>20,500</u>
Total Grants	\$540,650

**Contributions to Professional Service** (committee service to department, college, university, and/or professional societies)

1. Served as President of the Soil Science Society of Georgia, 2004.

2. Appointed as Extension Administrative Advisor to the SERA-6 group of southern region soil scientists on Soil Testing and Plant Analysis (2000 to present) by Southern region directors of Extension administrators.
3. Served as Co-Convenor of the symposium “Case Histories of the Relationships Among Soils and Societies” of the World Congress of Soil Science, held in Philadelphia in July 2006.
4. Appointed by Dr. F. Sherwood Roland, Chairman of the Office of International Affairs of the US National Research Council, to a one-year term (June 1, 1998 to May 31, 1999) on the first US National Committee of Soil Science, which is attached to US National Research Council. Then reappointed to a second term for three more years (1999 to 2002).

### **Goals for the Next Five Years**

**1.** Continue and enhance the active involvement of both undergraduate and graduate students at the Agricultural and Environmental Services Labs. Undergraduates can learn about the steps and protocols to be followed to insure quality analytical data for clients. This knowledge will be useful to them later in their careers. Graduate students can participate in research that will enhance programs serving clients throughout the state of Georgia.

**2.** Enhance through research and administrative decision making the instrumentation and analytical service capabilities of the Agricultural and Environmental Services Laboratories. These include: 1. continued improvement in NIR Spectroscopy capability for developing information that will enhance the use of forages, animal wastes, biofuel feedstocks, and perhaps soils. 2. Continued improvement of the new Soil pH and Lime Buffer Capacity Procedures. This work will include continued research with a commercial company for developing field NIR capability for creating spatially variable lime application maps. As a part of this effort, work will continue on mapping of soil properties regarding economically and environmentally important decisions about lime and fertilizer made by client farmers and consultants. 3. Improved elemental analysis detection limits of ICP for water testing, feed analysis, etc. 4. Many others that will come to light with the development of new knowledge.

**3.** Enhance collaboration with academic departments and other units of the University of Georgia to facilitate the goals above.

**4.** Continue and enhance the development of web based data management and data summary capability for the use of AESL clients.