

Dr. Henry Janzen

Research scientist in soil biochemistry with Agriculture and Agri-Food Canada at Lethbridge, Alberta.



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Henry Janzen is a research scientist in soil biochemistry with Agriculture and Agri-Food Canada at Lethbridge, Alberta. He has studied the flows of carbon and nitrogen in agricultural ecosystems, especially their links to global cycles and long-term changes in the biosphere. An important focus has been finding ways of storing more carbon and reducing greenhouse gas emissions in these ecosystems as a way of mitigating climate change.

In this work, he has been active in various national and international ventures, including assignments with the Intergovernmental Panel on Climate Change (IPCC). More recently, he has expanded this perspective to encompass also related issues such as food security and other benefits derived from land. Henry is a Fellow of the Canadian Society of Soil Science and a Fellow of the Soil Science Society of America.

Henry was the lead author of the seminal article "Global Prospects Rooted in Soil Science" (Soil Sci. Soc. Am. J. 75:1-8, 2011). From the abstract:

The biosphere, our fragile and exquisite home, is changing abruptly and irrevocably, largely from human interference. Most or all of the coming stresses have links to the land, so finding hopeful outcomes depend on wide and deep understanding of soils.

In this review, we pose eight urgent issues confronting humanity in coming decades: demands for food, water, nutrients, and energy; and challenges of climate change, biodiversity, "waste" reuse, and global equity. We then suggest some steps soil scientists might take to address these questions: a refocusing of research, a broadening of vision, a renewed enticement of emerging scientists, and more lucid telling of past successes and future prospects.

The questions posed and responses posited are incomplete and not yet fully refined. But the conversations they elicit may help direct soil science toward greater relevance in preserving our fragile home on this changing planet.

- 1984: Boyd Ellis, Michigan State, Soil Chemistry
- 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
- 2009: Paul Bertsch, Kentucky, Environmental Chemistry
- 2010: David Laird, USDA-ARS, Soil-Environmental Quality
- 2011: Sally Brown, Washington, Soil Remediation
- 2012: Henry Janzen, Canada Soil Biochemistry

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 polyphosphate 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-ninth
Annual

Roscoe Ellis, Jr. Lectureship in SOIL SCIENCE

**“Soil as story:
probing the past,
exploring the
future.”**

By Dr. Henry Janzen

**Research scientist in soil
biochemistry with
Agriculture and Agri-Food
Canada at Lethbridge,
Alberta.**

**4:00 p.m. Wednesday,
February 29, 2012**

**1018 Throckmorton Hall
Kansas State University
Manhattan, KS**

Refreshments @ 3:30 in TH Lobby