

IOWA STATE UNIVERSITY

Agricultural and Biosystems Engineering

Ramesh S. Kanwar

C.F. Curtiss Distinguished Professor

2212 NSRIC
515-294-0417
rskanwar@iastate.edu
www.abe.iastate.edu

Education

Ph.D. Agricultural Engineering, 1981
Iowa State University
M.S. Agricultural Engineering, 1975
G.B. Pant Univ. Ag & Tech, India
B.S. Agricultural Engineering, 1969
Pb Agr. Univ., India

Honors and Awards

Dean's Citation, 2014
Distinguished Alumni Award, PAU, India, 2012
International Agriculture Leadership Award, 2012
Fellow of Indian Society of Agricultural Engineers, 2012
John Deere Gold Medal, ASABE, 2009
Doctorate Honoris Causa, Trakia U, Bulgaria, 2007

Recent Publications

Hoover, N.L.; **R.S. Kanwar**, M. Soupier, and C. Pederson. 2014. Effects of poultry manure application on phosphorus in soil and tile drain water under a corn-soybean rotation. *Water, Air, and Soil Pollution J.* 226 (5): 138-150.

Ruttanaprasert, R., P. Banterng, S. Jogloy, N. Vorasoot, T. Kesmla, **R.S. Kanwar**, C.C. Holbrook, and A. Patanothai. 2014. Genotypic variability for tuber yield, biomass and drought tolerance in Jerusalem artichoke germplasm. *Turkish J. Agric. Forestry* 38 (4):570-580.

Malone, R.W., B.T. Nolan, L. Ma, **R.S. Kanwar**, C. Peterson and P. Heilman. 2014. Effects of tillage and application rate on atrazine transport to subsurface drainage: evaluation of RZWQM using a six year field study. *Agricultural Water Management* 132:10-22.

Ahmed, S., S. Mickelson, C. Pederson, J. Baker, **R.S. Kanwar**, J. Lorimor, and D. Webber. 2013. Swine manure rate, timing, and application method effects on soil nutrients, crop yield, & potential water quality implications in a corn-soybean rotation. *TRANSACTIONS of the ASABE* 56: 395-408.

Ruttanaprasert, R., S. Jogloy, N. Vorasoot, T. Kesmla, **R.S. Kanwar**, C.C. Holbrook, and A. Patanothai. 2013. Photoperiod and growing degree days effect on dry matter partitioning in Jerusalem artichoke. *International J. Plant Production* 7 (3): 393-415.

Huy, N.Q., **R.S. Kanwar**, N.L. Hoover, P. Dixon, J. Hobbs, C. Pederson, and M.L. Soupier. 2013. Long-Term Effects of Poultry Manure Application on Nitrate Leaching in Tile Drain Water. *Transactions of the ASABE* 56(1): 91-101.

Teaching

Dr. Kanwar teaches graduate and undergraduate course soil and water management, erosion and sediment transport, and water quality; (recruits graduate students on externally funded projects, serves as major professor to graduate students, and encourages them to publish thesis papers in refereed journals.

Research

Dr. Kanwar's research interests are in the broader areas of water resource and environmental engineering (irrigation, drainage, groundwater quality, water table management, international water security, and hydrologic modeling), natural resource engineering, sustainable agricultural production systems, animal waste management, and global sustainable systems. Primary goal is to develop engineering solution to emerging global food, human nutrition, water resources and environmental problems as a result of intensive agricultural, livestock, and aquaculture production systems in agricultural watersheds. Some of projects are highlighted below:

Long-term Impact of agricultural and animal production systems on global food security, water security, and environmental sustainability (including surface and groundwater quality)

One of the challenges for the global society is how to feed 9 billion people in 2050. At the same time, public is concerned about the impacts of agricultural (crop, animal, poultry, and aquaculture) production systems on global food security and environmental sustainability. To answer some of these questions and help solve food security related issues, Dr. Kanwar has several on-going research projects in Iowa and in other countries to investigate the impacts of agricultural and animal production systems on food security, water quality, and environmental sustainability. Another area of his research interest is global water security and he has couple of ongoing studies to answer questions related to water conservation practices and water policy. The results of these studies will help us solve global food and water security problems in the world and minimize pollution of water resources.

Other Professional Interests

Dr. Kanwar participates in international development projects either as team member or consultant; he has worked for the World Bank, GEF, EU, FAO, UNDP, USAID, NATO, and foreign universities/governments in Belgium, Portugal, Kenya, Ethiopia, Poland, Romania, Ukraine, Georgia, Uzbekistan, Pakistan, India, China, Thailand, Japan, and 45 other countries.

