

Curriculum Vitae

W. Lee Daniels

Thomas B. Hutcheson, Jr. Professor of Environmental Soil Science

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Education

B.S.	Forestry	VPI & SU	1978
M.S.	Agronomy - Soil Genesis	VPI & SU	1980
Ph.D.	Agronomy - Soil Mineralogy & Geomorphology	VPI & SU	1985

Previous Positions

1989-1998 Associate Professor in Crop and Soil Env. Sci. (Va Tech)
1987-1989 Assistant Professor in Agronomy (Va Tech)
1982-1987 Instructor in Agronomy (Va Tech)
1981-1982 Research Associate in Agronomy (Va Tech)

Honors and Recognition

Outstanding Technical Paper Award, 1982 National Symposium on Surface Mining Hydrology, Sedimentology and Reclamation, Lexington, KY.

Outstanding Ph.D. Candidate Award, VPI & SU Sigma Xi Science Society (1985)

President, Virginia Association of Professional Soil Scientists (1988)

President, American Society for Surface Mining and Reclamation (1990)

Reclamation Researcher of the Year, Amer. Society for Surface Mining and Reclamation. (1993)

Keynote Speaker, First South American International Conference on Rehabilitation of Degraded Lands, Parana, Brazil. (1994)

USEPA National Biosolids Beneficial Use Research Award, 2000

Keynote Speaker, AMIREG 2009, Towards Sustainable Development: Assessing the Footprint of Resource Utilization and Hazardous Waste Management, Athens Greece.

W. E. Plass Award for Lifetime Achievement in Mined Land Reclamation Research. 2012. American Society for Mining and Reclamation.

Areas of Specialization and Expertise

Restoration of disturbed lands including areas disturbed by mining, road building, waste disposal, urbanization, and erosion. Extensive experience in mine reclamation and wetlands restoration.

Geochemistry of near-surface weathering reactions and their influence on soil solution, leachate chemistry and runoff water quality, including lab simulations and field verification.

The influence of land application of wastes on soil properties, geochemical weathering reactions, and water quality. Extensive experience with municipal and industrial sludges and ash materials.

Soil geomorphology and landscape analysis with particular emphasis on the relationships among surficial geology, hydrology, soil patterns, and long-term landscape evolution processes.

Selected Recent Publications

Stuczynski T., G. Siebielec, W. L. Daniels, G. McCarty, R. Chaney. 2007. Biological aspects of metal waste reclamation with biosolids. *J. Env. Quality* 36:1154-1162.

Orndorff Z. W., W. L. Daniels, D. Fanning. 2008. Reclamation of Disturbed Sulfidic Coastal Plain Sediments Using Lime-Stabilized Biosolids. *J. Env. Quality* 37:1447-1455.

Haering, K.C., W.L. Daniels, G.E. Evanylo. 2008. Soybean phytotoxicity from land-applied biosolids. *Journal of Residuals Science and Technology* 5(1):1-12.

Bruland, G.L., C.R. Richardson and W.L. Daniels. 2009. Microbial and geochemical responses to organic matter amendments in a created wetland. *Wetlands* 29:4 1153–1165.

Schroeder P.D., W.L Daniels and M.M. Alley. 2010. Chemical and Physical Properties of Reconstructed Mineral Sands Mine Soils in Southeastern Virginia. *Soil Science* 175 (1): 2-9.

Kostyanovskiy, K., G. Evanylo, K. Lasley, W. Daniels, and C. Shang. 2012. Leaching potential and forms of phosphorus in deep row applied biosolids underlying hybrid poplar. *Ecological Engineering* 37:1765-1771.

Phillips R., A. Wick, M. Liebig, M. West, and W. Daniels. 2012. Biogenic emissions of CO₂ and N₂O at multiple depths increase exponentially during a simulated soil thaw for a northern prairie Mollisol. *Soil Biology & Biochemistry* 45:14-22.

Research Website and Full Publications: <http://www.cses.vt.edu/revegetation/>