



Robert L. Hill
Professor
University of Maryland
College of Agriculture and Natural Resources
Environmental Science & Technology
rlh@umd.edu
(301) 405-1347



Area of Expertise:

- Soil physics related areas dealing with water movement and storage in soils; contaminant transport through soils; soil mechanical issues related to tillage, soil compaction, and infiltration; development of good agronomic management strategies that reduce water pollution while maintaining crop productivity; soil erosion and erosion mechanics; modeling soil, water, and contaminant behavior and movement; landscape-based environmental modeling; spatial and temporal variability of soil and water processes;
- Evaluation of climate change adaptations
- Nutrient management and phosphorus loss risk assessment software development

Focus of Research:

- Transport and survivability of *E. Coli* and *Enterococcus* bacteria in cattle manure
- Impacts of agricultural management adaptations to lessen the impacts of climate change in the Eastern United States
- Nutrient management and phosphorus loss risk assessment software development
- Collaborative research with scientists at Northwestern Agriculture & Forestry University in China

Current Funded Projects (Source):

- USDA-SARE assistantship to evaluate climate change adaptations for the Eastern United States
- USDA-ARS Cooperative Research evaluating and modelling the survivability and transport of *E. Coli* and *Enterococcus* bacteria through soil
- MDA-funded Nutrient Management Project to development nutrient management planning software dealing with the phased transition to using the Phosphorus Management Tool as the primary tool evaluating phosphorus loss risk assessment