



United States Department of Agriculture

Agricultural Research Service

The USDA, Agricultural Research Service, Beltsville Agricultural Research Center, Adaptive Cropping Systems Laboratory located in Beltsville, MD, is seeking an energetic permanent full-time Research Soil Scientist. The salary for this position is \$89,834.00 - \$176,300.00 per year plus benefits. U.S. Citizenship is required. The candidate chosen for this position will be a part of a highly experienced, diverse, and multifaceted team whose mission is to evaluate crop responses to climate change, develop adaptation and mitigation strategies, apply systems theory to the solution of complex, agricultural problems and to develop computer-aided farm decision support systems and assessment tools for environmental study and analysis.

The ideal candidate would be a systems level thinker with strong quantitative skills. We are seeking an individual with a diverse background who would use these skills to investigate and quantify the interaction of soil microbial community composition and metabolic activities and their subsequent influences on nutrient cycling and availability for plant uptake/biological activities. Using a systems approach, research on the interplay of root exudates, temperature, CO₂, water/soil pore system and soil management on nitrous oxide, methane and CO₂ emissions will lead to mathematical and conceptual models of the soil biosphere. These models will consider root growth, plant nutrient use efficiency, carbon budgets, water, the macro- and microbiological components and their activities and other important components of the soil ecosystem. Information and data will be linked with existing above ground mechanistic models of crop growth for evaluation of management effects on both soil health and sustainability and crop production resiliency. The incumbent will work collaboratively with highly recognized and cutting edge scientists from other USDA-ARS laboratories to obtain experimental data regarding soil biological processes from multiple locations. The incumbent is also responsible for planning research activities, reporting to customers and scientific peers, and supporting technology transfer of products developed during research.

Analysis, interpretation, and dissemination of findings will be done in the form of reports, presentations, and publications in scientific journals.

This announcement is open from **June 3, 2022 – July 5, 2022**. To view the announcement and/or to apply, please go to <https://www.usajobs.gov> and search for announcement **ARS-D22Y-11520867-EYM**.

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