Design and Cost of a Measuring and Monitoring Scheme for Soil Carbon Credits. (S05-mooney131500-Oral)

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Abstract:

Many firms in the United States anticipate that a cap on GHG emissions will eventually be imposed and are taking voluntary actions to reduce their emissions. If agricultural producers participate in the emerging market for tradable C-credits by sequestering soil C, there is a need to verify that their actions do increase and maintain C in soils over the length of the contract. We develop a measurement protocol for C-credits sequestered in agricultural soils and estimate its costs for the small grain-producing region of Montana. Three key results emerge: first, the efficiency of measurement procedures for agricultural soil C sequestration depends on the price of C-credits; second, the measurement costs are largest in areas that exhibit the greatest heterogeneity in C values; and third in a case study application of our prototype measurement scheme, the upper estimate of measurement costs associated with a contract that pays producers for each C-credit is only 3 percent of the value of a C-credit. We conclude that measurement costs are not likely to be large enough to prevent these agricultural producers from participating in a market for tradable credits.

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