Assessing the Carbon and Energy Balance of a Grazed Pasture in Central Kentucky Using the Eddy Covariance Method

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Many biomes act as carbon sources and/or sinks. One specific biome of interest in terms of carbon storage, is grasslands. Pasture and rangeland accounts for 27 percent of the total land area in the United States. The soil underneath these grasslands are important carbon sinks. Management of these grasslands affects the carbon balance of the ecosystem. Understanding the movement of carbon in and out of the ground is invaluable management knowledge. This ongoing investigation uses the eddy covariance method to document the carbon and energy balance of a grazed pasture in central Kentucky over a three-year period. Preliminary results have provided insight into the behavior of carbon and energy fluxes through this system as well as driving variables of flux over daily and seasonal cycles.