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GHG flux response on grassland fertilizing

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Climate Change Convention (1994) and Kyoto Protocol (1997) committed intergovernmental mitigation of climate change has become an increasing concern for agro sector as well. Biosphere-atmosphere interactions were investigated on a light deeply carbonate washed light loam soil (Bathihypogleyi–Calc(ar)ic Luvisol) in different managed grassland ecosystems of Training farm of Lithuanian University of Agriculture in 2009 within the frame of the European Projects COST. Objective of this investigation was to determine impact of fertilizers, their rates and combinations on GHG emission and productivity of natural sward and cultural pasture.
GHG emission measurements were run in June-September, when meteorological conditions were optimal for intensive plant and soil biota physiological processes, in absence of frosts stress.
Results of this investigation will be compared to results of analogical investigation of natural, pure nutritional value sward not commonly used on the farms. Accounting for GHG emission of grassland ecosystems may be important to evaluate and interpret measurements of fluxes at regional and ecosystem levels.

Keywords: GHG emission, grassland, fertilizing