2011 Fall Meeting
Search Results

Cite abstracts as **Author(s) (2011), Title, Abstract xxxxx-xxxx presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.**

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hott

R.A. patV

HR: 1135h
AN: **B42B-05**
TI: Brazilian environmental legislation and scenarios for carbon balance in Areas of Permanent Preservation (APP) in dairy livestock regions
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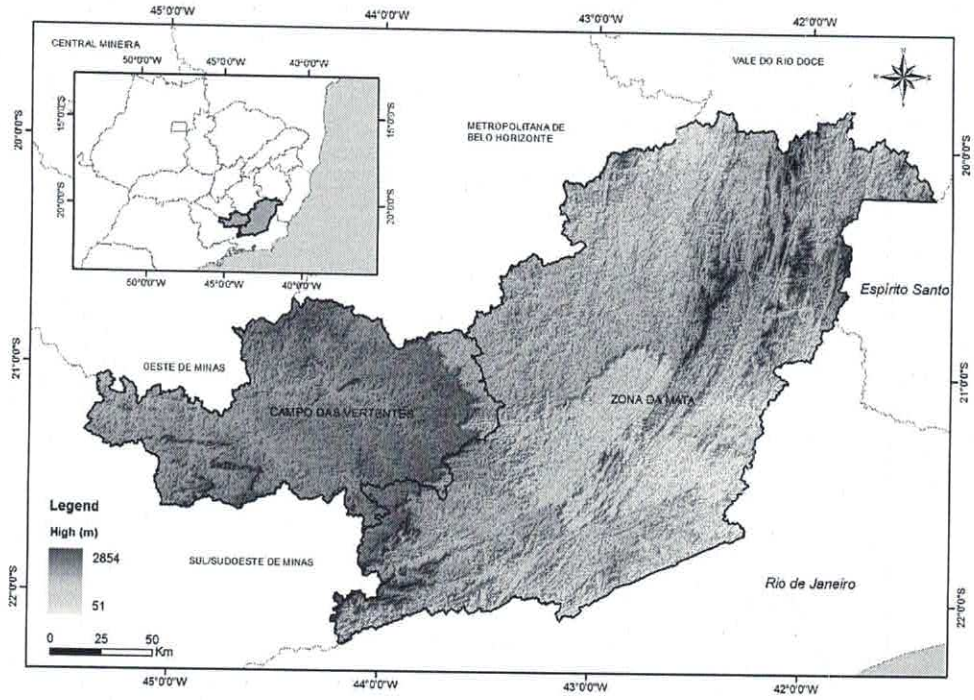
AB: The present study aimed at mapping some categories of Areas of Permanent Preservation (APP) for natural regeneration of semideciduous forests in the regions of Zona da Mata and Campo das Vertentes, Minas Gerais State (Figure 1), and from this to establish what impact the deployment of APP over area of pastures and subsequently milk production and carbon sequestration, considering areas of pasture as one of major factors for the dairy farming in the regions concerned. From the altimetric information from MDE, it was possible to extract morphological and morphometrical data to estimate the areas of APP. We used imagery of MODIS/Terra for extraction of the pastures areas from the vegetation index data NDVI to intersect with the estimated area of APP. In a linear or deterministic scenario of deployment of APPs over in the pasture areas considering that wich are proportionately responsible for sizing the herd, and thus for the milk production in extensive livestock, despite the existence of numerous other factors, there would be an impact 12% in the production of Campo das Vertentes region and 21.5% for the Zona da Mata. In this scenario, according to the carbon balance of forests and livestock, there would be a positive balance with the deployment of areas of permanent preservation and, subsequent promotion of natural regeneration. Considering the current grazing area of the Zona da Mata and Campo das Vertentes, 1.6 million hectares, with the carbon balance estimated at 1 ton/hectare/year, 300,000 hectares would have a balance of 5 ton/hectare/year in whole cycle of 40 years, totaling 200 tons carbon by hectare, or additional 48 million tons fixed, considering 4 tons more than pastures in the case of semideciduous forest. At the end of the cycle or forest climax, there would still be positive carbon balance, estimated as a balance of 2 ton/hectare/year. However, despite the higher carbon balance for the semideciduous forest, compared to livestock, it is important to maintain a balance between conservation of natural resources, land suitability and demand for food, especially for milk in these regions, which provide inputs for the dairy industry. The brazilian environmental legislation faces a turbulent period of change, but certainly it can contribute to increase carbon sequestration.



DE: [0402] BIOGEOSCIENCES / Agricultural systems
SC: Biogeosciences (B)
MN: 2011 Fall Meeting

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