

## **Hydrodynamic characterization of soils within a representative watershed in northeast Brazil**

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**Abstract** Studies about the infiltration of water in the soil, based on hydraulic conductivity and retention curve, are important to simulate hydrological processes and pollution fluxes. This paper aims to present the hydrodynamic soil behaviour of the Gramame watershed, located in northeast Brazil. This basin is representative of several other watersheds located on the coastal region of northeast Brazil, where sugarcane crops constitute the main land use. For this study, three different land uses and land covers were considered: sugarcane crops, pineapple crops and Atlantic Forest, which is the native forest of this region. The Beerkan method and the BEST program were used in order to get retention and hydraulic conductivity curves. The results show that the highest values of hydraulic conductivity were obtained at points located in native vegetation and deforestation impacts the soil hydrodynamic characteristics.

**Key words** infiltration; Atlantic Forest; Beerkan method; Brazil