

Accepted Manuscript

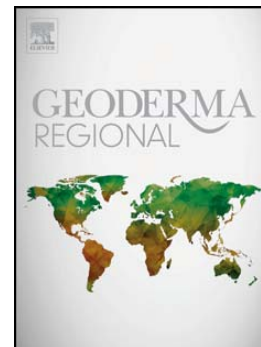
Assessment of the physical quality of a Fluvisol in the Brazilian semiarid region

Rodolfo Souza, Eduardo Souza, André Maciel Netto, André Quintão de Almeida, Genival Barros Júnior, José Raliuson Inácio Silva, José Romualdo de Sousa Lima, Antonio Celso Dantas Antonino

PII: S2352-0094(16)30150-X
DOI: doi:[10.1016/j.geodrs.2017.07.008](https://doi.org/10.1016/j.geodrs.2017.07.008)
Reference: GEODRS 137

To appear in:

Received date: 27 January 2017
Revised date: 24 July 2017
Accepted date: 25 July 2017



Please cite this article as: Souza, Rodolfo, Souza, Eduardo, Netto, André Maciel, Almeida, André Quintão de, Júnior, Genival Barros, Silva, José Raliuson Inácio, de Sousa Lima, José Romualdo, Antonino, Antonio Celso Dantas, Assessment of the physical quality of a Fluvisol in the Brazilian semiarid region, (2017), doi:[10.1016/j.geodrs.2017.07.008](https://doi.org/10.1016/j.geodrs.2017.07.008)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Assessment of the physical quality of a Fluvisol in the Brazilian semiarid region

Rodolfo Souza^{a,*}, Eduardo Souza^b, André Maciel Netto^a, André Quintão de Almeida^c, Genival Barros Júnior^b, José Raliuson Inácio Silva^b, José Romualdo de Sousa Lima^d, Antonio Celso Dantas Antonino^a

^aFederal University of Pernambuco, Recife-PE, Brazil

^bRural Federal University of Pernambuco, Serra Talhada-PE, Brazil

^cFederal University of Sergipe, Aracajú-SE, Brazil

^dRural Federal University of Pernambuco, Garanhuns-PE, Brazil

Abstract

In Brazil, the physical quality of soils has been frequently investigated using the S index (*idS*); however, information regarding the quality of other important agricultural soils such as Fluvisols is lacking. Therefore, this study aimed to evaluate the soil physical and hydraulic interaction with *idS* and determine how these properties are distributed spatially in a Fluvisol from Parnamirim, located in the semiarid region of Pernambuco. Soil water retention $\theta(h)$ and hydraulic conductivity $K(\theta)$ curves were generated using 30 samples from the soil surface by using the Beerkan method. The parameter $\theta(h)$ was used to determine the *idS* for each sample; subsequently, Pearson's correlation and geostatistic analyses were conducted to determine the prop-

*I am the corresponding author

Email addresses: rodolfo.marcondes@ufpe.br (Rodolfo Souza), eduardo.ssouza@ufrpe.br (Eduardo Souza), andmnetto@gmail.com (André Maciel Netto), aqalmeida@gmail.com (André Quintão de Almeida), genival.barrosjunior@ufrpe.br (Genival Barros Júnior), raliuson.agro@gmail.com (José Raliuson Inácio Silva), romualdo_solo@yahoo.com.br (José Romualdo de Sousa Lima), acdantonio@gmail.com (Antonio Celso Dantas Antonino)

Download English Version:

<https://daneshyari.com/en/article/5758657>

Download Persian Version:

<https://daneshyari.com/article/5758657>

[Daneshyari.com](https://daneshyari.com)