



## **Water retention of a hydrophobic soil: Disentangling the effect of structure, organic matter and soil water repellency**

C.M. Regalado (1) and A. Ritter (2)

(1) Instituto Canario de Investigaciones Agrarias (ICIA), Dep. Suelos y Riegos, Tenerife, Spain (cregalad@icia.es), (2) Dep. Ingeniería, Producción y Economía Agraria, Universidad de La Laguna, Ctra. Geneto, 2; La Laguna, 38200 Tenerife (aritter@ull.es)

Soil water retention is affected by hydrophobicity. Both soil organic matter content (SOM) and structure also affect water retention. However these three effects are coupled such that one may be affected by the others. Thus, for example, SOM contributes to soil structure but also to soil water repellency. We measured the water retention curve of a forest organic soil under different treatments in order to evaluate in isolation the contribution of hydrophobicity, SOM and structure. We propose a mechanism to explain how the various components involved in the water retention of the studied soil affect its moisture characteristic curve.