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CHARACTERIZATION OF KEY PROPERTIES IN THE WATER-SOIL-PLANT SPHERE IN THE 2022 GUÁJARES FOREST FIRE

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Abstract

In 2022, in Los Guájares, Granada, 5,000 ha were affected by a forest fire reaching a perimeter of 150 km. To date, the origin and causes of this forest fire are unknown. The general objective of the research is to establish the bases for the realization of a first map of soil properties, especially hydric and biological, in soils subjected to different uses, in recently burned and adjacent areas. This objective is intended to be, in turn, the starting point for the application of a larger-scale project. The research presents a multidisciplinary and transversal approach, aimed at a problem with global repercussions that requires an urgent response and from a multiscalar point of view: the soil-water-plant relationship within the framework of productive activity and natural risks. We sampled a total of thirty rings (15 in a severely affected burned area and 15 in a non-burned mango plantation) to assess hydrophobicity (drop test), saturated hydraulic conductivity and water retention capacity. Moreover, using an online geographic information tool designed by Auravant, we will assess vegetation changes and status before and after the forest fire.

Keywords: land management; water-soil-plant;forest fire; Los Guájares;

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