



THE IMPACT OF ORGANIC AMENDMENTS ON SOIL PROPERTIES UNDER MEDITERRANEAN CLIMATIC CONDITIONS

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Soil erosion and unsustainable land uses produce adverse effect on SOC content. Soil management techniques and corrections can be applied for soil recovery, especially, with afforestation purposes. This study presents the short term effects of the application of different treatments and amendments on soil properties for soils included in several sets of closed plots located in the experimental area of Pinarillo (Nerja, Spain). The analysed soil properties were: pH, EC, Organic Carbon, total Nitrogen and total Carbon. In order to verify possible differences, we applied the test of Mann-Whitney U in corroboration with the previous homogeneity test of variance.

The result of each strategy set compared to the initial condition shows at least one significant modification in the analysed soil properties. Electrical conductivity was the most changeable soil property respect to the initial condition. Similarly, organic carbon content and total organic carbon remained quite similar. However, when all of the strategy sets are compared among them, total carbon was the most significantly changeable property. Mulching, polymers and urban residue seem to highly modify the soil initial conditions. Although soil physic-chemical parameters generally used to evaluate soil quality change very slowly. The analysed soil properties shows significant differences between dry and wet season. This fact, could be indicating the effect of certain seasonality as it is usual in Mediterranean condition.