

**RESTORING DEGRADED SOILS WITH ORGANIC MATTER: A CASE STUDY OF
THE RESTORATION PROCESS IN MACADAMIA ORCHARDS, LIMPOPO
PROVINCE**

by

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ABSTRACT

The main aim of this study was to examine the use of compost as an alternative organic practice to restore or improve soil quality in a macadamia orchard. Two different compost application rates ($0,5\text{m}^3$ and 1m^3 compost per tree) were investigated for the restoration of soil quality in degraded as well as improvement and maintenance of healthy soils of a macadamia orchard. Various biological, physical and chemical soil health indicators were measured to determine the impact of the compost treatments on both the soils of the healthy as well as the degraded soil in a macadamia orchard. Overall 40 % of all soil properties improved in the healthy soil and 53 % of all soil properties that were measured in the degraded soil with the application of compost. The research also found that even the smaller application of compost (0.5m^3) was overall significant to improve soil quality and health of the soils in the study area.

Key words: *Compost, Soil Organic Matter, Soil Quality Indicators*