

***Mucuna pruriens* and its Effect on some Physical, Chemical and Biological Properties of a Forest Acrisol**

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Abstract

The effect of *Mucuna pruriens*, a herbaceous legume, on some properties of a forest acrisol was examined in RCBD experiment of four treatments: control, NPK fertilizer, mucuna incorporation and mucuna mulch. At flowering, the fresh biomass was cut at soil level, chopped up and applied to the soil either by incorporation or as mulch. In both cases, mucuna improved the physical, chemical and biological properties of the soil. Available soil moisture content increased from 9.54% to values between 10.20% and 11.40% while bulk density reduced from 1.42 to 1.36 Mg m⁻³. Total N increased from 0.14% to 0.18%. Organic C and K levels did not change while P was slightly reduced. Earthworm populations in the mucuna plots were three times higher than those plots without mucuna. Mucuna suppressed weed growth. These improvements in the physical and chemical properties are indicators of the potential of *M. pruriens* in enhancing crop yields.