EVALUATION OF MICRONUTRIENTS IN PARTHENIUM MEDIATED VERMICOMPOST

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Abstract - Parthenium hysterophorus (family: Asteraceae.) is a noxious terrestrial herbaceous weed. Vermicomposting is a cost-effective, eco-friendly process used to treat organic materials. The aim of this study reports the production of vermicompost from noxious weed of Parthenium hysterophorus using earthworms (Eudrilus eugeniae) and assessing its nutritional status. Parthenium mediated vermicompost showed a high level in plant nutrition and low level in organic carbon and phenol contents than compared to initial feed mixture. Earthworm's biomass was low in high concentration of E. crassipes (without cow dung). The result states that 100% Parthenium mediated treatments affects the growth and cocoon production of Eudrilus eugeniae. The results revealed that high concentration of cow dung mixed with treatments has high level of nitrogen, phosphorus, potassium magnesium, iron zinc and copper and also it improved the vermicompost production and earthworm biomass. It concluded that Parthenium can be used as organic manure by vermicomposting.

Keywords - Eudrilus eugeniae, micronutrients, Parthenium hysterophorus L., vermicompost.