عنوان مقاله:

Biochemical, morphological, and yield responses of lady's finger plants to varying ratios of palm oilmill waste (decanter cake) application as a bio-fertilizer

محل انتشار:

مجله بین المللی بازیافت مواد آلی در کشاورزی, دوره 2, شماره 1 (سال: 1392)

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خلاصه مقاله:

Background: Decanter cake is produced in large amounts, and its disposal is a major concern in palm-producingcountries. Growth morphology and biochemical responses of lady's finger (Abelmoschus esculentus) plants grown onsoil amended with different ratios of decanter cake (0%, 10%, 20%, and 30%) were investigated.Results: The soil pH decreased (unamended soil), whereas the electrical conductivity increased as compared withthe control. There was a significant difference in ascorbic acid content with the increase in treatment ratio. Phenolcontent was however highest in 20% of the amendment (13.197 ± 0.36mg g−1).Conclusions: The results indicate that decanter cake amendments of up to 10% may be a probable substitute forinorganic fertilizers with respect to lady's finger (A. esculentus) plants due to high nutrient content, yield andbiomass, as well as morphological characteristics. However, .there were observable negative effects after 10%decanter cake amendment ratios

کلمات کلیدی:

Decanter cake, Amendment ratios, Phenol content, Specific leaf area, Chlorophyll, Lady’s finger