

## عنوان مقاله:

Vermicomposting of two types of coconut wastes employing *Eudrilus eugeniae*: a comparative study

## محل انتشار:

مجله بین المللی بازیافت مواد آلی در کشاورزی، دوره 1، شماره 1 (سال: 1391)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Twana A Tahir - *Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur 50603, Malaysia*

Fanziah S Hamid - *Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur 50603, Malaysia- Department of Environmental Engineering, Faculty of Engineering, Komar University of Science and Technology, Sulaymani, Kurdistan Region 46001, Iraq*

## خلاصه مقاله:

Background: While the increase in the number of coconut-based industries in Malaysia supports economic growth positively, it affects the environment negatively by generating large amounts of coconut wastes. This study has endeavored to assess the possibility of vermicomposting different types of coconut wastes and, in doing so, evaluated the potential of using the African nightcrawler (*Eudrilus eugeniae*) to decompose coconut wastes. The study was conducted over a 50-day duration using two different types of coconut wastes: coconut husk (CH) and spent coconut flakes (SCF). The nutrient content of the vermicompost at various stages of treatments was determined. Three different percentage ratios were used: {C1-W or B1-W (100% waste), C2-W or B2-W (70% waste + 30% goat manure), and C3-W or B3-W (50% waste + 50% goat manure)}. Twenty healthy adult *E. eugeniae* (each 0.02 to 0.03 kg) were introduced to each treatment. Results: Results showed that the degradation process was very fast in the spent coconut flakes which needed only 16 days for complete decomposition, while that in the coconut husk needed 2 months. Available phosphorous (P) and total potassium (TK) values declined in CH. The available P and TK in C3-W (50% waste + 50% goat manure) were less than the initial values by 26.6% and 53.69%, respectively. Moreover, P and TK values increased in SCF at the final stage as in B2-W (70% waste + 30% goat manure) which was 69.3% more than the initial level. The weights of the worms were recorded throughout the experimental period.

## کلمات کلیدی:

Agrowaste, Coconut waste, *Eudrilus eugeniae*, Vermicomposting

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/464497>

