

Utilization of Biodegradable Waste in Manufacture of Eco Brick

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Abstract: Cow dung is the undigested residue of plant matter which has passed through the guts of cow. It is rich in minerals like Potassium, Magnesium, Sodium, Manganese, and is comprised of organic matters. Cow dung can be used to manufacture bricks which are eco-friendly and much cheaper. The main objective of the journal is to analyze the utilization of the biodegradable waste in the manufacture of eco-bricks, compared to conventional brick. In this the advantages of soil, cow dung, areca fiber are considered as a potential towards the economy. The suitability of biodegradable waste, cow dung, is accessed along with clayey soil as a partial replacement for producing the eco-brick. The method of producing traditional bricks from the kiln is costly and causes pollution. Areca fiber is the low cost, light weight, fairly good mechanical properties, non-abrasive, non-biodegradability attributes swap for a regular fiber. The use of areca nut husk fiber has reinforcing material in the preparation of light weight composites provides utility value to areca nut husk fiber. Areca nut husk fiber is an agricultural waste, which does not contribute to the economy of areca nut plantation. The areca fiber acts as a reinforcing element in the specimen. Considering all the parameters it can be concluded that eco-bricks prepared with cow dung and areca fibers can be used as a sustainable construction material and it proved to be economical.

Keywords: Cow Dung, Minerals, Eco-friendly, Areca Husk Fibers, Mechanical properties

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