Review on underutilized Malaysian agro-wastes as reinforcements in polymer composites.

Abstract

This paper reviews a number of Malaysian agricultural wastes such as cocoa pod husk (CPH), betel nut husk (BNH), and coffee hulls/husks (CH) with potential for use as reinforcement in polymer composites. Some notable advantages exhibited by these agricultural wastes as reinforcement in polymer composites, and their current utilization were discussed. Recent attempts by several workers in utilizing CPH, BNH, and CH were also reviewed and elaborated to find out the effect and further potential of incorporating these agro-wastes fibers in polymer composites. Challenges such as compounding difficulties, storage issues and lack in deep finding regarding these types of fibers are believed to be the factors that make CPH, BNH and coffee hulls/husks fiber are still being underutilized in Malaysia.

Keyword: Agricultural wastes; Natural fiber; Polymer composites.