Title :   Production of Cat Litter from Agricultural Industrial Biomass Waste

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ABSTRACT

This research aimed to develop an eco-friendly cat litter utilizing soybean hulls, an industrial byproduct, in combination with biochar, guar gum, and mineral oil to enhance liquid absorption, clumping efficiency, and odor reduction. Three formulations containing 0%, 10%, 20% and 30% biochar by weight were produced and evaluated. The formulation with 20% biochar exhibited the best performance, absorbing over five times its weight in liquid, achieving a 92% clumping rate, and significantly reducing odors. These findings highlight the potential of soybean hulls and biochar in sustainable cat litter production, promoting industrial waste reduction and value-added utilization of agricultural byproducts.

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