

**USE OF ARECANUT HUSK AS A PARTIAL  
SUBSTITUANT IN COCO PEAT**

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By  
**NUWARA PAKSHAGE ASANKA SANDARUWAN  
GUNARATHNA**

**Palm & Latex Technology and Value Addition Degree  
Programme**

**Faculty of Animal Science and Export Agriculture**

**Uva Wellassa University of Sri Lanka**

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## ABSTRACT

Arecanut is a plant belongs to the palmae family which is supposed to have similar properties to coconut and specially it may contains antifungal properties than coconut. More over arecanut husk is not used for preparation of any by product. With consideration to all these factors the aim of this research is to develop a coco peat growing bag by using arecanut chips as a partial substituent. The first objective was to make the growing bag which has low EC levels and similar expansion compared to coco peat made by coco nut chips. For that five samples of coco peat were produced by using the coco pith to arecanut chips ratios of 90:10 (R1), 80:20(R2), 70:30(R3), 60:40(R4) and 50:50 (R5) respectively. After that the EC level and expanded volume were measured and the ratios which have lower EC levels and similar expanded volumes, compared to the coco peat made by using coconut chips were selected for the estimation of antifungal properties. All the tested samples were resulted low EC levels compared coco peat with coconut chips. But R2 and R3 did not have similar expanded volume to coco peat made by using coconut chips. Therefore R2 and R3 were not considered for further studies and estimate the antifungal properties. Antifungal properties were checked only for R1, R4 and R5 by using *T. Peradoxa* pure cultures. The antifungal property was measured by the inhibition zone diameter. According to the obtained results R5 produces maximum zone of inhibition which emphasizes that arecanut husk chips contains antifungal properties. Hence it can be concluded that a coco-peat can be produced by using arecanut chips as a partial substituent which also contains antifungal properties against *T. peradoxa*.

Key words - *T. peradoxa*, arecanut, antifungal properties, coco peat