

BIOPULPING BAGASSE DENGAN MENGGUNAKAN JENIS JAMUR PELAPUK PUTIH DAN WAKTU INKUBASI YANG BERBEDA

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Abstract	<p>Bagasse is fibrous residue that remains after the sugarcane is crushed to extract its juice. It mostly consists of lignocellulosic materials that may provide material for paper production through biopulping process. White rot fungi (WRF) is producers of extracellular ligninolytic enzymes that has the capability to mineralize lignin compounds. Three types of white rot fungi that were used in this study are <i>Phanerochaete chrysosporium</i>, <i>Pleurotus ostreatus</i> and <i>Schizophyllum commune</i>. Each of it was inoculated on bagasse substrate within 0, 15, and 30 days of incubation. This study was aimed to know the effect of interaction between white rot fungi and incubation time in the biopulping process and to investigate the most appropriate fungus and incubation time to produce good material for paper making obtained from sugarcane bagasse. The experimental design was done by using Completely Randomized Design (CRD) with a factorial pattern in two factors and analyzed by using Analysis of Variance (ANNOVA) then followed by Duncan's Multiple Range Test (DMRT) on highly different significance effect of the treatment. The result of this study showed that <i>S. commune</i> is the most effective fungi to degrade highly lignin content (17.38% to 8.88%) at 30 days of incubation, while <i>P. chrysosporium</i> is the most effective fungi to lowering cellulose content in small amount (23.64% to 19.38%) during 30 days of incubation.</p>
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