DIREK THANANONNIWAT : DECOLORIZATION AND POLYSACCHARIDE PRODUCTION FROM DISTILLERY SLOP BY FUNGUS. THESIS ADVISOR : ASSO PROF. SUCHADA JATIKAVANICH, ASSO PROF. PRAKITSIN SIHANONTH, Ph.D. 117 PP.
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Isolated 380 fungal strain from Thai soil were found that fungal strain D-1 had the ability not only in decolorizing distillery slop but also in producing polysaccharide at the same time. Optimization conditions such as environ mental factors and medium composition affected growth, decolorization efficiency and polysaccharide production were studied. It was observed that molasses waste water supple mented with 2.5% glucose and 0.1% yeast extract, initial pH adjusted to 5.0, agitated on rotary shaker at 200 rpm and incubate at 30$^{o}$c gave the maximum growth rate about 0.6275 grams dried mycelial weight per 100 ml. of medium, maximum decolorization activity about 97% and maximum polysaccharide production about 0.355 grams dried matter weight per 100 ml. of medium within 4 days. The isolated strain D-1 was identified in Class Deuteromycetes due to characteristic of white mycelium, septate hyphae formation, arthrospore, barrel-shape spore forming, no clamp connection. This potent strain was identical with the Order Moniliales, the Family Moniliaceae, the Genus Amblyosporium, so the fungus D-1 was Amblyosporium sp.