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APPLICATION OF *CITEROMYCES SIAMENSIS* FOR MOLASSES WASTEWATER DECOLORIZATION

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Abstract – Molasses is a brownish black viscous liquid produced in the last step of the cane sugar separating process. Molasses can be used in many industries, such as fertilizer production, animal husbandry, alcohol production, monosodium glutamate production, and acetic acid making. In Thailand, it is mainly used to produce alcohol and as animal feed. Molasses waste water is high in biochemical and chemical oxygen demand and suspended solids. If released into the environment without treatment, it will cause many environmental problems. Moreover, the molasses wastewater contains melanodin that is difficult to remove, which gives it a dark colour. The treated water, therefore, has a dark colour. If the treated water is released into a natural water source, it will cause the water to have an unusually dark colour. This research aims to study the optimum conditions for using *Citeromyces siamensis* microorganisms for biological disposal of wastewater. The experiment was conducted to find conditions that promote the reduction of the colour of molasses in wastewater. It has been found that the addition of 1 % glucose and 1 % peptone is more effective in decolourization by *Citeromyces siamensis* than the addition of other nutrients.

Keywords – *Citeromyces siamensis*; decolorization; molasses; wastewater

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