

**INVESTIGATION ON FEASIBILITY OF  
PRODUCING BIODIESEL FROM *MORINGA*  
*OLEIFERA* SEEDS**

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## ABSTRACT

This study present the possibility of producing biodiesel from *Moringa oleifera* seeds oils. Moringa Oleifera seeds was crushed to fine size using mortar and pestle and the oil was extracted by using soxhlet extractor in the presence of n-hexane as the solvent at 70°C. The oil produced was then undergoes transesterification process under the optimum parameter for production of Moringa oleifera methyl ester. The parameter that will be investigate in this study is methanol to oil weight ratio, the reaction time and the reaction temperature. The parameter will be differentiate and will be determine which parameter combination give the highest yield percentages of methyl ester or biodiesel production while the catalyst concentration and agitation speed is constant. The methanol to oil ratio was 20 wt%, 35 wt% and 50 wt%. The temperature is 30°C, 45°C and 60°C while the reaction time was ranging from 45, 60 and 75 minutes. The cost for raw material was calculate. The cost to produce 1 Liter of biodiesel was calculated and then was compared to the current diesel prices and also compared to the other biodiesel products such as palm oil. Cost to produce 1 liter of biodiesel was calculated and then was compared to the current diesel prices and also compared to the other biodiesel products such as palm oil. From the current prices of diesel and biodiesel, diesel prices is much lower compare to biodiesel prices. The prices for 1 Liter of MOMEs was RM22 which is ten times the prices of diesel RM2.00.