

ADAPTATION AND PERFORMANCE EVALUATION OF DIESEL ENGINE FOR DE - OILED COCONUT CAKE APPLICATIONS

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Abstract

The fuel is prepared by just adding dry de oiled cake powder at various proportions with diesel. Experiments were carried out in a single cylinder, water cooled, four stroke diesel engine for various blends of coconut de oiled cake powder CDOCP and diesel fuel as 5%, 10% 15 % 20% and 25% CDOCP in the fuel blend. The fuel has the potential to reduce smoke, CO emissions simultaneously with 3% increase in efficiency and a small increase in HC and NOx emission. The experimental results show that CDOCP blend operation results in higher brake thermal efficiency with reduced emissions compared to the neat diesel and slightly less when comparing with pure oil blends

Keywords: Coconut de oiled cake powder, blended fuel, performance and emission characteristics and bio-fuels