

# A Review on Recent Advances in Bio-Fuel Development

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**Abstract:** *For the concurrent energy researches around the world, the question of energy availability and the effects of global warming have taken on particular importance. This situation creates room for prospective, more modern and sustainable alternative energy sources. In the industrial, automotive and even as a fuel source for power plants, biodiesel can be used as a sustainable alternative energy. This study offers a detailed overview of the use and advancement of bio-diesel as a fuel for the production of renewable energy from material sources. The creation of various bio-diesel mixture combinations and their use in diverse sectors is a key topic covered in this study. In order to use different types of biodiesel in different parts of the world, its physical and chemical properties have been researched. Although the use of biodiesel reduces emissions and pollutants, a specific approach is required to maximise efficiency and effectiveness, both technically and non-technically. However, the use of biodiesel together with the optimization of its properties and parameters demonstrates that this alternative energy is practical and might be used as a sustainable fuel source for the auto industry and electricity generation in the future.*

**Keywords:** Bio-diesel, bio-fuel, bio-mass, emission, feedstock

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