

A REVIEW ON SECOND GENERATION BIOFUEL: A COMPARISON OF ITS CARBON FOOTPRINTS

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ABSTRACT

The aim of this paper is to compare the First-generation and Second- generation biofuels in terms of their carbon footprint in the environment. From this study, the carbon footprint of First generation biofuels was found to reduce the greenhouse gas effect by 78% while the Second generation biofuels reduce greenhouse gas by 94% when compared to the greenhouse gas effect caused by Fossil fuels. The viability of the first generation biofuels production is however proved to be less attractive because of the conflict not only with food supply but also because of its high carbon footprint. Moreover, energy balance and energy efficiency of different types of biofuel were analyzed and variable factors were proposed so as to provide a balanced analysis. Also, areas of research and development need in second –generation biofuels technology were highlighted.

Keywords: Second Generation, Biofuel, Carbon, Footprint.