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On the Mechanical, Thermal and Biodegradation of Jackfruit Seed Starch Bioplastic

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Abstract: *In this work, we have prepared jackfruit seed starch-based bioplastic with glycerol as plasticizer. Since it has been reported that the amount of plasticizer can affect the properties of a bioplastic, we have tried to optimize the jackfruit seed starch: plasticizer ratio for the preparation of bioplastics. The mechanical properties, thermal stability, and the biodegradability of bioplastic in air, soil, water and bacterial medium were investigated. It was observed that the strength of the bioplastic decreases with increasing amounts of plasticizer. We have prepared degradable bioplastic with reasonable shelf life which can find applications in the field of disposable carry bags and garbage bags.*

Keywords: jackfruit seed starch, bioplastics, shelf-life, mechanical properties, degradation studies

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