

**GELATIN (BINDER) CHARACTERIZATION OF JACKFRUIT
SEED STARCH FOR BIODEGRADABLE PLASTIC FABRICATION**

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ABSTRACT

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The main objective of this research is to fabricate biodegradable plastic from jackfruit seed starch and gelatin blend. Gelatin is used as a binder while glycerol is used as a plasticizer. Mechanical and degradability properties of the jackfruit seed starch and gelatin (1 : 0.1, 1 : 0.2, 1 : 0.3 and 1 : 1) blend were investigated. It was found that the tensile strength and elongation at break increasing with the increasing in gelatin content. The sample with ratio 1 : 1 has the highest tensile strength and elongation at break which is 851.015 MPa and 5.502%. FTIR spectroscopy showed that the composition with the highest amount of gelatin (1 : 1) has higher biodegradability rate compared to the lowest amount of gelatin (1 : 0.1).

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