



# **ISPO RESEARCH ABSTRACT**

**UTILIZATION OF UBI BANGGAI (DIOSCOREA SPP) AND ITS  
CHARACTERIZATION FOR THE MAKING OF EDIBLE FILM**

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## **UTILIZATION OF UBI BANGGAI (DIOSCOREA SPP) AND ITS CHARACTERIZATION FOR THE MAKING OF EDIBLE FILM**

### **ABSTRACT**

*The purpose of this study was to produce edible films and to determine the characterization of starch-based edible films of Banggai Sweet Potato (*Dioscorea spp*). The types of plasticizers used are glycerol and sorbitol. The best treatment in this study is an edible film with a temperature of 80°C with 2% (w/v) glycerol and 2% (w/v) sorbitol. Resulting in a thickness of 0.478 mm and 0.488 mm, tensile strength of 0.007 Kgf/mm<sup>2</sup> and 0.021 Kgf/mm<sup>2</sup>, percent elongation 27.76% and 12.36, pH 6.52 and 7.6, water absorption 46.62% and 14.37%, solubility 20.14.8% 14.8%, rate of water vapor transmission 0.2209 g/hourm<sup>2</sup> and 0.4560 g/hourm<sup>2</sup>. FTIR test results showed that the production process of edible films in this study is a physical mixing process, and the shelf life of edible films is six days at room temperature and eight days at cold temperatures.*

**Keywords :** *Edible Film, glycerol, sorbitol, plasticizer.*