

## The Properties of Edible Film Made of Tapioca, Canna and Arrowroot as Affected by Application of Various Concentration of Plasticizer

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<b>Abstract</b>	<p>Edible film is thin layers made of edible components, formed to cover the food components or placed between food components that acts as a barrier to mass transfer (eg. moisture, oxygen, lipids, and solutes), and or as a carrier for food ingredients and additional ingredients, and to facilitate food handling. Utilization of starch as raw materials for making edible film has good ability to protect products against oxygen, carbon dioxide, oil, and improve the unity of the product structure. In general, the common edible film used is composed from alginate, sago starch and acacia gum. However, the production of edible films from tubers has not been widely used, although in Indonesia there are many areas that produce tubers such as cassava, canna tuber, and arrowroot tuber. This study aims to evaluate the effects of the treatment between the types of raw materials and the concentration of sorbitol used on the chemical, physical and sensory characteristics of edible films. The experimental design used in this study was a Completely Randomized Design (CRD). The factors studied were the type of raw materials, consisting of B1 = Tapioca, B2 = Canna starch, B3 = Arrowroot starch and sorbitol concentration (S), consisting of: S1 = 1%, S2 = 2%, S3 = 3%. The results showed that edible film with combination treatment using tapioca as raw materials with 2% sorbitol concentration showed better quality compared to other treatments. The results of the analysis showed the value of moisture content of 14.10%, ash content of 0.09%, solubility 53.9%, brightness (L*) 22.63, thickness of 0.14 mm, clarity, not stiff, and preferred by panelists.</p>
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