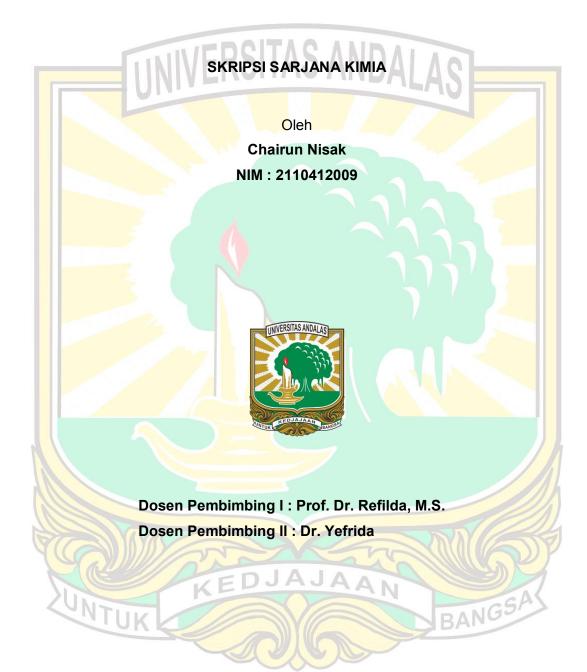
PENGARUH EDIBLE COATING PEKTIN KULIT JERUK BALI KOMERSIAL DENGAN PENAMBAHAN EKSTRAK DAUN SALAM (Syzygium polyanthum) TERHADAP SIFAT FISIKOKIMIA DAN MASA SIMPAN BUAH STROBERI (Fragaria sp.)



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ABSTRACT

Effect of Edible Coating of Commercial Grapefuit Peel Pectin with the addition of Salam Leaf Extract (*Syzygium polyanthum*) on Physicochemical Properties and Shelf Life of Strawberry Fruit (*Fragaria sp.*)

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Strawberry is an economically important fruit and is widely cultivated. Strawberry is a non-climacteric fruit that is highly perishable mainly due to mechanical damage, moisture loss, tissue softening and fungal damage. Storing strawberries at inappropriate temperatures after harvest significantly increases fruit weight loss, the incidence of rotting and softening. All of these factors limit the potential for storage, distribution and marketing of strawberries. This study aims to determine the optimum formulation of edible coating formation from pectin, glycerol, and bay leaf extract (Syzygium polyanthum) as a coating for strawberries (Fragaria sp.) and how the edible coating affects the physicochemical properties and shelf life of strawberries (*Fragaria sp.*). Based on the research results, the optimum composition was obtained, namely pectin with a concentration of 0.5%, glycerol 0,4% and bay leaf extract 30 mL. Strawberries treated with optimum composition have an optimal shelf life of 6 days. During storage, the parameters tested were fruit weight loss, fruit decay, total soluble solids, total titratable acid, and total antioxidant content. The quality of strawberries coated under optimum conditions can significantly suppress weight loss by 22.58%, slow down decay by 4.44% compared to control fruit 33.33%, maintain total soluble solids by 7.3°Brix, maintain total titratable acid by 1.96%, and increase total antioxidant content by 1.60 mg AA/g FW during storage. Therefore, the addition of bay leaf extract to pectin as a fruit coating material can be an effective choice to extend the shelf life and maintain the quality of strawberries during storage after harvest.

