# *Plectranthus amboinicus* EXTRACT AND ALOE VERA GEL-BASED COATING FOR TOMATOES

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## ABSTRACT

### *Plectranthus amboinicus* EXTRACT AND ALOE VERA GEL-BASED COATING FOR TOMATOES

Post-harvest quality becomes a concern as various physiological processes occur which leads to significant losses in fruit quality during the storage period. Currently, many edible coatings or films have been developed to extend the shelf life of fruits, but aloe vera gel coating incorporated with *Plectranthus amboinicus* extract remain largely unexplored. Coating is the best alternative, especially coating that is made of material that has antimicrobial properties that can help to inhibit the bacteria growth in fruits. Thus, the objective of this study is to prepare *Aloe Vera* gel-based coating by incorporating it with *Plectranthus amboinicus* extract, to determine the antimicrobial properties of *Aloe Vera* gel-based coating incorporated with *Plectranthus amboinicus* extract and to evaluate the characteristics of coated and uncoated tomato fruits during storage by analyzing its weight loss, the colour, total soluble solids and pH. The coating mixture was prepared and the antimicrobial activity of the coating was determined by using the zone of inhibition method, however there is no inhibition observed. AVG + PEE exhibit the minimum weight loss, slightly less red in colour as they exhibit higher L* value (42.35), lower total solubility solids (4.4%) and lower pH (4.35). AVG + PEE stand as the best treatment to retain the total soluble solid of tomatoes during storage period and it also stand as the best treatment to preserve the post-harvest quality of tomatoes at room temperature.

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