

## ABSTRACT

**Nabila Nafi' Atina. 24020122420011. *Effect of bamboo-based packaging and storage temperature combinations on physical and chemical quality of salak pondoh (Salacca zalacca (Gaertn.) Voss).***

*Alterations in fruit quality represent a significant consideration in postharvest procedures, impacting both safety and nutritional attributes, as well as shelf life. Salak pondoh as an Indonesian fruit with good nutrition is prone to deterioration due to its perishable nature. To maintain its quality, proper postharvest management with packaging and temperature control is essential. Although traditional packaging such as besek offers environmental benefits, its effectiveness needs to be further optimised. This study aims to determine the combined effect of packaging and storage temperature on the physical and chemical quality of salak pondoh and to determine the most optimal combination in maintaining its quality. The research design used was Factorial CRD with two combinations of factors, namely packaging (no packaging (P0) and packed with besek (P1)) and storage temperature (room temperature (T0) and low temperature (T1)). The study was conducted with 4 replications and carried out for 12 and 24 days.. The research data were processed by statistical analysis of Anova and Tukey HSD. The results showed that packaging with besek affected ( $p < 0.05$ ) the physical quality of salak pondoh fruit, but had no effect on its chemical quality. The storage temperature also had a significant effect ( $p < 0.05$ ) on the physical quality of the fruit as well as one of the chemical qualities, vitamin C content. There was no interaction ( $p > 0.05$ ) between packaging and storage temperature in maintaining the quality of salak pondoh fruit. Packaging with besek maintained the physical quality of salak pondoh fruit. Meanwhile, storage at low temperatures helps in maintaining the physical quality and vitamin C levels effectively.*

*Keywords : Salak pondoh, catabolic activity, packaging, quality*