



PREVENTION OF MELANOSIS AND QUALITY LOSS OF PACIFIC WHITE SHRIMP (*LITOPENAEUS VANNAMEI*) BY ETHANOL *PERSICARIA ODORATA* EXTRACT DURING FROZEN STORAGE

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ABSTRACT

Ethanol extract from *Persicaria odorata* leaf was applied to investigate the ability to preserve Pacific white shrimp (*Litopenaeus vannamei*) during frozen storage of 5 days at -21°C in comparison with 1.25% sodium metabisulfite. From evaluating the effects of *P.odorata* extract concentration and immersion time on melanosis formation, shrimps treated with the extract at 1/15 (mg/mL, w/v) in 10 minutes showed the lowest degree of melanosis. Microbiological analyses showed that Pacific white shrimp treated with *P. odorata* extract possessed lower values in total plate count and *Enterobacteriaceae* count compared with the control ($p<0.05$). pH and total volatile base content saw a lower increase in samples treated with *P. odorata* crude extract ($p<0.05$). Freshness loss, protein degradation, and melanosis growth in shrimps with crude extract treatments were impeded. The results show that *P. odorata* extract can be used a potential source of melanosis inhibitors, and natural preservatives for shelf-life extension of Pacific white shrimp during frozen storage.