

**THE EFFECTS OF MALAY HERBS ON THE STORAGE
STABILITY OF CHILLED 'KEROPOK LEKOR'**

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ABSTRACT

THE EFFECTS OF MALAY HERBS ON THE STORAGE STABILITY OF CHILLED 'KEROPOK LEKOR'

'Keropok Lekor' is a famous traditional cuisine especially in the East Coast of Malaysia. The primary ingredients are fish, flour, sugar and salt. This study was conducted on 'Keropok Lekor' to observe the storage stability for 12 days at chilled temperature (4°C) after adding mixed local herbs. The formulation without any incorporation was used as control. The other formulations were incorporation with dry mix Malay herbs, incorporation with wet mix Malay herbs and another one is incorporation with BHA/BHT as a comparison between synthetic and natural plant antioxidant. Analysis that was carried out is chemical analysis which evaluated through measurement of primary (Peroxide Value) and secondary (Thiobarbituric Acid Value) oxidation products. Microbiological determinations included the Total Plate Count and Mould and Yeast Count. Sensory evaluation tests were also carried out. Dry and wet mix herbs of *P. hydropiper* and *C. asiatica* resulted in significant ($P < 0.05$) inhibition of lipid peroxidation as compared to control sample. At initial, the Thiobarbituric Acid Value obtained was not significantly different than to 'Keropok Lekor' that was added with BHA/BHT. Total plate count showed a high count for all the samples. But, the treated samples were significantly lower ($P < 0.05$) than control until day 9 of storage. Mould and Yeast Count however showed a lower count than Total Plate Count whereby control was significantly higher ($P < 0.05$) than the other treated samples throughout the storage time. The highest overall acceptability in sensory evaluation was the 'Keropok Lekor' incorporated with wet herbs. In conclusion, the best antioxidative and antimicrobial effects were obtained from the 'Keropok Lekor' incorporated with BHA/BHT. But the incorporation of 'Keropok Lekor' with natural herbs also effectively reduced the lipid peroxidation which shows antioxidative effect up to 9 days of storage. Study showed that not much antimicrobial effect was observed for the treated samples.