

EFFECTS OF *COTYLELOBIUM LANCEOLATUM* AND *SHOREA TALURA* EXTRACT ON MICROORGANISMS AND STORAGE OF MEAT AT LOW TEMPERATURES

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Abstract

Water extract of *Cotylelobium lanceolatum* (Kiam) and *Shorea talura* (Phayom) wood were sprayed on pork and beef cut surfaces. The sprayed meats and control were placed on foam trays and wrapped with polyethylene cling wrap. Meat samples were kept at 4°C for a period of 10 days. Aerobic plate counts of the control and treated meat were significantly different ($P < 0.05$). Both Kiam and Phayom extract had relatively similar antimicrobial activities. The maximum reductions in microbial loads were about 1.35 and 1.24 log cycle for pork treated with Kiam and Phayom extract at day 7, respectively and about 1.15 and 1.21 log cycle for beef treated with Kiam and Phayom extract at days 4 and 3, respectively. Development of off-odors was observed. Control samples of both pork and beef became sour after 48 hrs while treated meat cuts stayed normal till day 5. Strong off-odors were detected at day 7 and were described as sour and ammoniacal odors. In addition, sulfidy odors were observed from control meats in the last two days of storage.

Key words : *Cotylelobium lanceolatum*, *Shorea talura*, Meat sanitizing, Meat microbiology, Meat storage.

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