

Title Antimicrobial activity of clove (*Syzygium aromaticum*) oil in inhibiting *Listeria monocytogenes* on chicken frankfurters

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Abstract

The ability of *Listeria monocytogenes* to survive and grow at refrigeration temperature in some ready to eat (RTE) poultry products is a public health concern. The inhibitory effect of clove oil (1% and 2%, v/w) applied to the surface of RTE chicken frankfurters was determined on seven strains of *L. monocytogenes* inoculated at low (10^2 – 10^3 cfu/g) or high cell numbers (10^4 – 10^6 cfu/g), and stored at 5 °C for 2 weeks or at 15 °C for 1 week. All strains of *L. monocytogenes* survived and grew on control frankfurters at 5 °C and 15 °C but growth was inhibited under both storage conditions in the presence of either 1% or 2% clove oil. Depending on the sensory considerations, the addition of clove oil to frankfurters may be an effective strategy to control *L. monocytogenes* in chicken frankfurters.