ABSTRACT

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APPLICATION OF STAR ANISE (*Illicium verum* Hook. F.) EXTRACT AS A NATURAL PRESERVATIVE FOR BEEF MEATBALL
(xii + 58 pages : 8 tables, 13 pictures, 21 appendices)

Star anise (*Illicium verum* Hook. F.) has been used as culinary spices. Some studies had been done about antimicrobial compounds in star anise fruit and their ability to inhibit microbes’ growth. The aim of this research was to study the potential of star anise extract as a natural preservative for beef meatball. Selected extract of the research was ethanol extract which was based on the diameter of inhibition against microbes (3.00-24.25 mm). Minimum Inhibition Concentration (MIC) and Minimum Bactericidal Concentration (MBC) were to determine by using Bloomfield (1991) method. The research used three different concentrations of MIC (3, 4 and 5 MIC). The microbiological test showed that beef meatball AA (research) and SS (commercial) soaked in solution 0 MIC were not accepted based on SNI since day 0 and day 1. Beef meatball AA and SS soaked in solution 3 and 4 MIC were accepted based on SNI until day 1. Beef meatball AA and SS soaked in solution 5 MIC was accepted based on SNI until day 2. Challenge test result showed that star anise ethanol extract can inhibit bacterial growth and the effectiveness of this extract is 74.00-99.98%.

Keywords: Star anise, ethanol extract, antimicrobe, beef meatball

Reference: 58 (1976-2010)