

ABSTRACT

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BUMBU PERENDAMAN BERBASIS CABAI MERAH SEBAGAI ANTIMIKROBA TERHADAP PERTUMBUHAN BAKTERI PADA DAGING AYAM FILLET

MARINADE BASE ON RED CHILI AS ANTIMICROBIAL TOWARD BACTERIAL GROWTH IN CHICKEN FILLET

(136 pages : 11 tables : 14 figures : 18 appendixes)

*Red chili is one of the spices that have been used as antimicrobial seasoning. The antibacterial compound and its ability to inhibit several bacteria in red chili have been studied. The aims of this research were to study the antimicrobial effect of marinade base on red chili as natural preservative toward chicken fillet. Three selected concentration (20%, 25%, and 30%) from the main research was marinade base on red chili from the diameter of inhibition. The marinade base on red chili can inhibit *Staphylococcus aureus* (11,9-19,8 mm), *Pseudomonas aeruginosa* (5,4-7,6 mm), *Bacillus cereus* (7,6-9,9 mm), and *Escherichia coli* (4,3-6,6 mm). Active compounds as alkaloid, glycoside, flavonoid, triterphenoid, and saponin are determined by phytochemical test. Marinade base on red chili is a non-toxic compound based on toxicity test. Those tests showed that 30% concentration of red chili on marinade is the best concentration of all. Microbiology test showed that marinade base on red chili can preserve chicken fillet up to 2 days on cold storage (5°C) and 1 day on room storage (24°C), based on microbiological range of Indonesian Fresh Chicken Standard (SNI). Challenge test result showed that the best inhibition of bacterial growth found in 30% concentration of red chili on marinade and the effectiveness of the marinade was reached 97,23%. Organoleptic test showed that chicken fillet soaked in 30% concentration of red chili on marinade concentration was the most accepted by panelists. Proximate test showed that marinated fried chicken base on red chili has total energy up to 276,91 calories.*

Keywords : Red, chili, chili base marinated, chicken fillet, and antimicrobial

References : 67 (1980– 2010)