ABSTRACT

PHYSICAL AND MICROBIOLOGICAL CHARACTERISTICS CHANGES OF FRANKFURTERS SAUSAGE WITH ADDITION OF ROSELA AND ANKA DURING STORAGE

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Processed foods, in this case sausage, which can be met nowadays often use additives to preserve and color it in order to increase the value and acceptability of the foods. Nitrite is widely used for its mioglobin fixation, antibacterial, and preservatives, but nitrite could harm human’s health because of its carcinogenic characteristic. The harm can be prevented if we substitute nitrite with natural herbs such as rosella and anka. The objectives of this research were to determine physical and microbiological change during storing period. Storing period were 20 days and tested three times (day 0, day 10, and day 20) with three repetition and and the two factors were preservative type (nitrite as control and the combination of anka-rosella (0.75%:1%)) and storing duration. Observed variables are the physical characteristics (pH, water holding capacity and tenderness) and microbial characteristic such as total microbial population, total lactic acid bacteria population and quantitative population of Escherischia coli. This research used factorial randomized complete design and the data analyzed with ANOVA. The research conducted from July to August 2010 at the Processing Laboratory of Large Ruminants, Faculty of Animal Science and Seafood Center IPB. Result showed that combination of anka and rosella (0.75%:1%) could substitute nitrite function in sausage. ANOVA showed that kinds of preservatives had no difference to microbial population in sausage. In conclusion, the addition of anka and rosela (0.75%:1%) were no different to sausage with nitrite addition (0,0125%). Storage time was the most influencing factor of physical and microbiological change on sausage during storage.

Keywords: Frankfurter sausage, anka and rosella powder, and nitrite