Microbiological Assessment of Fish Sausages Coated with Smoked-Edible Film, and Stored in Room and Refrigerator Temperatures

Authors: Henny A. Dien, Roike I. Montolalu, Feny Mentang, Jupni Keno, Reynerd S. Burdam, Siegfried Berhimpon

Abstract: Fish Sausages became popular nowadays, because of high nutritious and low in cholesterol. However, this food is also highly perishable and often contaminated by pathogen bacteria. Edible film was made from myofibril of Black Marlin (Makaira indica) waste, with addition of liquid smoke 0.8%. The aim of this study were to determine the TPC, total coliform and Escherichia coli in fish sausages coated with smoked edible film, and stored in room temperature (26-29°C), and refrigerator (5-10°C). Results shown that TPC in fish sausages coated with smoked edible film were lower than that of without coated, both for storage in room temperature and in refrigerator. Total coliform in coated with smoked edible film and stored in room temperature ranged between 7-120 MPN/g (1-4 days), while stored in refrigerator ranged between 7-93 MPN/g (1-6 days); while fish sausages coated with edible film without liquid smoke were 7-240 MPN/g (1-4 days) in room temperature, and 7-150 MPN/g in refrigerator. Total E. coli of fish sausages coated with smoked edible film and stored in room temperature ranged between 3-4 MPN/g (1-4 days), while stored in refrigerator ranged were 3 MPN/g (1-6 days); while fish sausages coated with edible film without smoked both stored in room temperature and in refrigerator, shown total E. coli 3 MPN/g during 4 days in room temperature, and 6 days in refrigerator. Total E. coli of sausages without coated stored in room temperature ranged between 7-24 MPN/g, and that of stored in refrigerator ranged between 3-4 MPN/g.

Keywords: smoke liquid, edible film, coating, sausages

Conference Title: ICFSN 2015: International Conference on Food Science and Nutrition
Conference Location: Paris, France
Conference Dates: August 27-28, 2015