MICROBIOLOGICAL ASSESSMENT AND CHARACTERIZATION OF BACTERIA ASSOCIATED WITH DAIRY CARABAO'S MILK-BASED (*Bibingka*)

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ABSTRACT

MIRANDA, JUNNIDA B., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines May 2018, **MICROBIOLOGICAL ASSESSMENT AND CHARACTERIZATION OF BACTERIA ASSOCIATED WITH DAIRY CARABAO'S MILK-BASED DELICACY**

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Foodborne microorganism can lead to serious outbreaks in the community hence, food safety is vital for the consumer. This study was focused on microbiological assessment and characterization of bacteria associated with dairy carabao's milk-based *bibingka* sold in local dairy cooperatives. Physical assessment of the product was performed prior the bacteriological assessment. Conventional method and Petrifilm™ was used in enumerating microorganisms. Aerobic plate count, presumptive confirmatory and completed coliform and *E. Coli* enumeration were utilized for the conventional method while Petrifilm™ Aerobic Count Plate and Petrifilm™ *E. coli* / Coliform Count Plate was used in 3M Petrifilm™.

The physical assessment of the product showed no objectionable traits in terms of odor, color, appearance and taste. Results showed that within the two samplings, the dairy carabao's milk-based *bibingka* satisfied some of the given standards for its properties. Parallel results was obtained among conventional methods and Petrifilm™ for analyses of aerobics, total coliforms and *Escherichia coli.*

Three isolates were the food-prevalent bacteria that appeared in both samplings. Three Gram positive bacterial isolates were characterized based on its cultural and morphological characteristics.

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