

ABSTRACT

Influence pH and Temperature on Bacteriocin Production from Lactic Acid Bacteria *Lactobacillus Plantarum* from Fruit Pineapple (*Ananas Comosus* L. Merr.) on Medium MRS

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Lactic acid bacteria are food grade microorganisms because they don't produce toxins so they are safe for consumption and as microorganisms that are not at risk to health, even some types of bacteria are useful for health. Lactic acid bacteria can produce organic acids, peroxides, biosurfactants and bacteriocin. Fruits that contain lactic acid bacteria have the potential to produce new antibiotics. One of the fruits containing lactic acid bacteria is pineapple. Pineapple is a carrier of lactic acid bacteria from *Lactobacillus*. *Lactobacillus plantarum* is the largest lactic acid bacteria isolated from pineapple that produces bacteriocins so that it can inhibit Gram-positive and Gram-negative bacteria such as *Staphylococcus aureus* and *Escherichia Coli*. Bacteriocin production is influenced by environmental factors such as pH, temperature, media, time of production and aeration. This literature review aims to determine the optimal pH and temperature of bacteriocin production from lactic acid bacteria; *Lactobacillus plantarum*, in MRS media. The literature review results show that the optimal pH of *Lactobacillus plantarum* bacteriocin production is at pH 5,0-6,5 and the optimal temperature is 30°C and 37°C.

Keywords: Lactic acid bacteria, bacteriocin, pH, temperature, *Lactobacillus plantarum*