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Effect of addition of lactic acid bacteria on fermentation quality of *Miscanthus sinnensis* silage

Ki-Choon Choi^{*1)}, Srisesharam Srigopalram¹⁾, Soundharrajan Ilavenil¹⁾, Palaniselvam Kuppasamy¹⁾, Hyung-Su Park¹⁾, Ji Hye Kim¹⁾, Yong Hee Yoon²⁾, Young Jin Kim¹⁾, and Jeong Sung Jung¹⁾

¹ Grassland and Forages Division, National Institute of Animal Science, RDA, Cheonan 331-808, Republic of Korea.

² Jungnong Bio Inc, Goksung, Chonnam, 57509, Republic of Korea.

Abstract

The aim of the study is to investigate the effect of new lactic acid bacteria as an additive for improving the quality of the *Miscanthus sinnensis* silage fermentation. The percentage of crude protein (CP), acid detergent fiber (ADF), and neutral detergent fiber (NDF) in lactic acid bacteria (LAB) inoculated silage showed similar to the control. The pH of *Miscanthus sinnensis* (MS) silage in the treatment of LAB inoculation significantly decreased as compared to control ($p < 0.05$). The content of lactic acid in the treatment of LAB inoculation significantly increased ($p < 0.05$) as compared to control, but, the content of acetic acid was reduced in the treatment of LAB inoculation. Also, numbers of the lactic acid bacteria population were higher in LAB-treated silage as compared to control ($p < 0.05$). The present study suggested that an addition of lactic acid bacteria significantly improved the quality fermentation in *Miscanthus sinnensis* silage.

Keywords: *Miscanthus sinnensis*, Lactic acid bacteria, Silage fermentation

Corresponding author*

Ki Choon Choi

National Institute of Animal Science, RDA, Cheonan 331-808, Korea

Tel: +82-41-580-6755

Fax: +82-41-580-6779

E-mail: choiwh@korea.kr