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## Fermentation Quality and Chemical Composition of Napier Pakchong 1 Silage Supplemented with Lactic Acid Bacteria

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### Abstract

The objective of this study were to evaluate effect of lactic acid bacteria supplementation on

fermentation quality and chemical composition of Napier Pakchong 1 silage. Lactic acid bacteria (LAB) were extracted from corn silage. The isolates was grow in MRS agar plate at 37 °C for 48 hours in anaerobic condition. The effect of LAB supplementation on fermentation quality and chemical composition of Napier Pakchong 1 silage were evaluated using in a completely randomised design (CRD). Napier Pakchong 1 Silage were divided 2 groups (control and supplemented with LAB with  $1 \times 10^5$  cfu/ml concentration). One kilogram of LAB napier Pakchong 1 grass was supplemented with 10 ml of LAB. Silage was collected at the day of 14, 21, 28 and 35 days of fermentation. Samples were collected for pH value, lactic acid concentration, chemical composition by proximate analysis and detergent method. It was found that pH value of napier Pakchong 1 silage supplemented with LAB were lower than control group. Lactic acid concentration was higher in Napier Pakchong 1 silage supplemented with LAB. The CP and ADF concentration of Napier Pakchong 1 silage declined as the increasing of ensiling time. The CP and EE concentration of Napier Pakchong 1 silage supplemented with LAB were higher than control group (8.57 vs 7.98 % and 2.5 vs 2.31 %) The CF concentration of Napier Pakchong 1 silage supplemented with LAB were higher than control group. It can be concluded that LAB supplementation increase fermentation of Napier Pakchong 1 silage and decrease the nutrient deterioration of Napier Pakchong 1 silage.

**Keywords:** Chemical composition, fermentation quality, lactic acid bacteria, napier Pakchong 1, silage