

Effect of dietary supplementation of *Agaricus blazei* Murill culture silage on milking performance of Holstein lactating cows ⁽¹⁾

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Abstract

The aim of this study was to determine the feasibility of using *Agaricus blazei* Murill culture silage in the diets for lactating cows. *Agaricus blazei* Murill cultures have average CP 14.75%, CF 0.74%, ADF 28.41% and NDF 29.45%. The results showed that 80% *Agaricus blazei* Murill culture with 20% corn flour and 2×10^8 cfu/g of *Lactobacillus plantarum* subsp. *Plantarum* and *Lactobacillus. casei*) had the best silage quality. The Flieg's score of the silage was 86 and dry matter was 56.5%, pH 4.41. Second part of this study was to investigate the effects of supplementing 20% of *Agaricus blazei* Murill culture silage in lieu of corn silage in the diets on lactation performance and dry matter intake of dairy cows. A cross-over design with 17 days of adaptation period and 4 days sampling period was conducted. A total of six Holstein lactating cows were assigned into two groups and provided diets containing 0 (control) or 20 (treatment) % *Agaricus blazei* Murill culture silage in TMR for 21 days. Results showed that the daily intakes of two groups reached 44.1 and 37.5 kg (DM basis) and daily milk yields were 24.1 and 21.8 kg, and SNF were 8.88% and 8.62% respectively ($P < 0.05$). Besides, there were no different on milk fat, protein and SCC contents between groups. In conclusion, provision the of *Agaricus blazei* Murill culture silage in diets decreased the intake and lactation performance in dairy cows.

Key words: Dairy cow, *Agaricus blazei* Murill culture, Silage.

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