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Effect of Harvesting Time of Triticale on the Feed Value in the Hay and Haylage

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[Introduction]

Ruminants can be prevented from metabolic disorders by feeding 2 to 3 kg of hay daily. A lot of research on hay has been conducted in other crops than triticale (*X Triticosecale* Wittmack), and many research on triticale feeding is also focused on silage. This study was conducted to provide information on the feed value in the triticale haylage, which can replace hay.

[Materials and Methods]

Seeds of triticale, 'Joseong', were sown in 2022 spring (March 7th), and then the haylages were prepared according to five different harvesting times: seedling stage (SS), booting stage (BS), heading stage (HS), 10 days after heading (10DAH), and 20 days after heading (20DAH). The sample was then anaerobic fermented at 25°C for 40 days. Additionally, hay (10% moisture content) was also prepared as a control. We investigated agricultural traits of the triticale by growth stage and analyzed the feed value of each hay and haylage, such as crude protein (CP), crude fiber, and total digestible nutrients (TDN).

[Results and Discussion]

Plant length and fresh weight of the triticale were increased toward the later growth stages, meaning which those of the 20DAH were the highest. Each feed value of the hay and haylage showed in a similar trend according to harvesting time. The crude protein content was higher in the fermented haylage (35%~12%) than the hay (24%~12%). The ADF according to growth stages (SS, BS, HS, 10DAH, and 20DAH) were gradually increased by 18.2, 23.7, 24.4, 25.3, and 28.1%, respectively, while the NDF and TDN were decreased in a similar trend.

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