

# **THE EFFECT OF CORN MEAL ADDITION ON PHYSICAL QUALITY OF SETARIA (*Setaria sphacelata*) GRASS SILAGE**

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## **ABSTRACT\*)**

This study aims to determine the effect of adding corn meal with different levels on the physical quality of *Setaria sphacelata* grass silage. This research was conducted from July 20 to August 20 2019 at the Nutrition Laboratory, Faculty of Agro-Industry, Mercu Buana University, Yogyakarta. The method used was an experimental method using a Completely Randomized Design (CRD) one way pattern with 4 treatments, each treatment was repeated 3 times, namely P0 without corn meal, P1 plus 10% corn meal, P2 20% and P3 30%. The observed variables are physical quality (pH, color, aroma, texture and the presence of mushrooms). The research data were analyzed by analysis of variance, if there are differences in the results of analysis of variance, then proceed with further tests namely Duncan's Multiple Range Test (DMRT). The results showed the mean physical quality tests were as follows: pH was P0 5.0, P1 4.7, P2 3.8 and P3 3.2, color P0 3.1 (brown), P1 4.0 (brownish yellow) , P2 4,2 (brownish yellow) and P3 4,6 (brownish yellow), flavor P0 2,2 (foul smelling), P1 3.0 (odorless), P2 4.0 (mildly acidic) and P3 4,7 (smells slightly acidic), texture P0 2.5 (slightly soft, slightly slimy and slightly runny) P1 3.3 (slimy), P2 4.0 (not lumpy and slightly slimy) and P3 4.6 (not lumpy) and slightly slimy), the presence of mushrooms P0 3.1 (a little), P1 3.6 (a little), P2 4.5 (very little) and P3 4.5 (very little). From the research results it can be concluded that the addition of 30% corn meal produces the best physical quality of the *Setaria sphacelata* grass silage.

**Keywords :** *Setaria* grass (*Setaria sphacelata*), physical quality silage, corn meal.

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