

THE EFFECT OF FERMENTATION DURATION ON NUTRIENT CONTENT AND PHYSICAL QUALITY OF SOYBEAN STRAW

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ABSTRACT *)

The purpose of this research was to determine the effect of fermentation time on nutrient content and physical quality of soybean straw. This research was conducted on May 21st 2018 to July 12th 2018 at the Animal Nutrition Laboratory and continued at the Mercu Buana University Chemical Laboratory, Yogyakarta. This research was designed using a completely randomized design (CRD) in a unidirectional pattern consisting of 4 treatment 3 replications. The treatment is P0: Control, P1 : 7 days fermentation time, P2 : 14 days fermentation time, and P3 : 21 days fermentation time. The variables observed were nutrient content and physical quality of soybean straw fermentation. Data were analyzed using Analysis of Variance (ANOVA), if there were significant differences followed by Duncan's New Multiple Range Test (DMRT). The results showed that fermentation time had a significant effect ($P < 0.05$) on water content, crude protein, crude fiber and crude fat content, but no significant effect ($P > 0.05$) on ash content and BETN, while physical quality showed significant differences ($P < 0.05$). Based on the results of the research it can be concluded that the 14 days duration of fermentation can increase the nutrient content and physical quality of soybean straw.

Key words : Soybean Straw, Nutrient content, Physical Quality, Fermentation Time.

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