

# KANDUNGAN KIMIA SILASE PAKAN KOMPLIT BERBAHAN DASAR *Azolla microphylla* DENGAN LAMA FERMENTASI YANG BERBEDA

RESTU DANDI ARIANTO  
NIM : 16021054

## INTISARI\*

Penelitian ini bertujuan untuk mengetahui kandungan kimia silase pakan komplit berbahan dasar *Azolla microphylla* dengan lama fermentasi yang berbeda. Penelitian ini dilaksanakan pada tanggal 03 Maret – 06 April 2020 di Laboratorium Nutrisi Ternak, Program Studi Peternakan, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta. Variabel yang diamati adalah kadar air, kadar abu, kadar lemak kasar, kadar serat kasar, kadar protein kasar dan bahan ekstrak tanpa nitrogen. Rancangan yang digunakan yaitu Rancangan Acak Lengkap dengan pola searah yang terdiri dari 4 perlakuan dan 3 kali ulangan. Penelitian ini terdiri dari 4 perlakuan P0 (kontrol), P1 (fermentasi 7 hari), P2 (fermentasi 14 hari) dan P3 (fermentasi 21 hari). Data dianalisis dengan menggunakan *Analysis of Variance*, apabila hasil anova berbeda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test*. Hasil rerata kandungan kadar air yaitu P0 60,50; P1 60,65; P2 61,93; dan P3 61,14%, abu yaitu P0 17,26; P1 15,96; P2 14,71; dan P3 13,46%, lemak kasar yaitu P0 5,29; P1 5,17; P2 5,10; dan P3 4,71%, serat kasar yaitu P0 43,74; P1 45,37; P2 45,88; dan P3 45,66%, protein kasar P0 6,99; P1 10,76; P2 11,63; dan P3 14,36%, bahan ekstrak tanpa nitrogen yaitu P0 26,71; P1 22,74; P2 22,68; dan P3 21,81%. Hasil analisis anova menunjukkan bahwa lama fermentasi yang berbeda berpengaruh nyata ( $P < 0,05$ ) terhadap kandungan abu dan protein kasar, sedangkan terhadap kandungan air, lemak kasar, serat kasar dan bahan ekstrak tanpa nitrogen, menunjukkan berpengaruh tidak nyata ( $P > 0,05$ ). Berdasarkan hasil penelitian disimpulkan bahwa kandungan kimia silase pakan komplit berbahan dasar *Azolla microphylla* terbaik pada perlakuan lama fermentasi 21 hari.

Kata kunci : Silase, pakan komplit, azolla, kandungan kimia, lama fermentasi

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**THE CHEMICAL CONTENT OF COMPLETE FEED SILAGE MADE FROM *Azolla microphylla* WITH DIFFERENT FERMENTATION TIME**

**RESTU DANDI ARIANTO  
NIM : 16021054**

**ABSTRACT\***

This study aims to determine the chemical content of complete feed silage made from *Azolla microphylla* with different fermentation times. This research was conducted on March 3 - April 6, 2020 in the Animal Nutrition Laboratory, Animal Husbandry Study Program, Faculty of Agro-Industry, Mercu Buana University, Yogyakarta. The variables observed were water content, ash content, crude fat content, crude fiber content, crude protein content and nitrogen free extract. The design used is a completely randomized design with one way pattern consisting of 4 treatments and 3 replications. This study consisted of 4 treatments P0 (control), P1 (7 days fermentation), P2 (14 days fermentation) and P3 (21 days fermentation). Data were analyzed using Analysis of Variance, if the anova results were significantly different followed by the Duncan's New Multiple Range Test. The results of the average water content P0 60.50; P1 60.65; P2 61.93; and P3 61.14%, ash P0 17.26; P1 15.96; P2 14.71; and P3 13.46%, crude fat P0 5.29; P1 5.17; P2 5.10; and P3 4.71%, crude fiber P0 43.74; P1 45.37; P2 45.88; and P3 45.66%, crude protein P0 6.99; P1 10.76; P2 11.63; and P3 14.36%, nitrogen free extract P0 26.71; P1 22.74; P2 22.68; and P3 21.81%. The results of analysis of variance showed that different fermentation time had a significant effect ( $P < 0.05$ ) on ash content and crude protein, whereas on water content, crude fat, crude fiber and nitrogen free extract, showed no significant effect ( $P > 0.05$ ). Based on the results of the study concluded that the chemical content of complete feed silage made from *Azolla microphylla* was the best in the 21-day fermentation treatment.

Keywords: Silage, complete feed, azolla, chemical content, fermentation time

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