

KUALITAS SILASE RUMPUT GAMA UMAMI (*Pennisetum purpureum* cv. GAMA UMAMI) DENGAN SUPLEMENTASI TAYUMAN (*Bauhinia purpurea*)

INTISARI

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Penelitian ini bertujuan untuk mengetahui level suplementasi tayuman yang optimal dalam pembuatan silase rumput gama umami. Penelitian dirancang dalam rancangan acak lengkap dengan empat perlakuan yaitu P0 = rumput GU 92,5% + *pollard* 7,5% + tayuman 0%; P1 = rumput GU 82,5% + *pollard* 7,5% + tayuman 10%; P2 = rumput GU 72,5% + *pollard* 7,5% + tayuman 20%; dan P3 = rumput GU 62,5% + *pollard* 7,5% + tayuman 30%. Setiap perlakuan direplikasi masing-masing lima kali sehingga terdapat 20 unit percobaan. Bahan silase dilayukan dengan cara diangin-anginkan di tempat yang kering dan teduh selama tiga hari pada rumput gama umami dan sehari pada tayuman, kemudian dicacah menggunakan *chopper* dengan ukuran 2 cm. Bahan silase dicampur menjadi satu, kemudian dimasukkan dan dipadatkan ke dalam kantong plastik ukuran 2 kg, hingga tidak ada ruang udara antar bahan untuk mencegah oksigen berlebih di dalam silo. Udara dikeluarkan dengan menggunakan *vacuum cleaner* dan diikat dengan tali. Terakhir, silo di-seal dengan menggunakan selotip hingga menutupi seluruh permukaan dan disimpan selama 21 hari. Data yang diperoleh yaitu karakteristik fisik, karakteristik fermentasi, kandungan nutrien, dan nilai *fleish score* silase. Hasil penelitian menunjukkan bahwa peningkatan level suplementasi tayuman meningkatkan ($P < 0,05$) nilai pH, konsentrasi NH_3 , bahan kering (BK), bahan organik (BO), protein kasar (PK), dan lemak kasar (LK) serta menurunkan ($P < 0,05$) serat kasar (SK) dan bahan ekstrak tanpa nitrogen (BETN). Level suplementasi tayuman tidak berpengaruh nyata ($P > 0,05$) terhadap nilai *fleish score* (FS) dengan FS paling tinggi pada perlakuan P0 (77,80) dan paling rendah pada perlakuan P3 (76,97). Disimpulkan bahwa silase rumput gama umami dengan suplementasi tayuman pada semua perlakuan tidak dapat menghasilkan pH silase yang ideal dibawah 4,2. Namun, secara keseluruhan silase rumput gama umami dengan suplementasi tayuman pada semua perlakuan digolongkan pada kualitas silase yang baik ditinjau dari nilai FS pada kisaran 76,97 – 77,80. Selain itu secara komposisi kimia, suplementasi tayuman pada level 30% merupakan level suplementasi terbaik yang ditandai dengan lebih tingginya kandungan PK yang dimiliki. Penambahan tayuman mampu meningkatkan kandungan PK silase rumput gama umami, tanpa menurunkan kualitas silase secara signifikan.

Kata kunci: Karakteristik Fermentasi, Kandungan Nutrien, Rumput Gama Umami, Silase, Tayuman

QUALITY OF GAMA UMAMI GRASS (*Pennisetum purpureum* cv. GAMA UMAMI) AND TAYUMAN (*Bauhinia purpurea*) MIXED

ABSTRACT

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This study aims to determine the optimal level of tayuman supplementation in making silage of gama umami grass. The study was designed in a completely randomized design with four treatments: P0 = 92.5% GU grass + 7.5% pollard + 0% tayuman; P1 = 82.5% GU grass + 7.5% pollard + 10% tayuman; P2 = 72.5% GU grass + 7.5% pollard + 20% tayuman; and P3 = 62.5% GU grass + 7.5% pollard + 30% tayuman. Each treatment was replicated five times so that there were 20 experimental units. Silage materials were aerated in a dry and shady place for three days on gama umami grass and one day on tayuman, then chopped using a chopper with a size of 2 cm. Silage materials were mixed and then packed tightly into a 2 kg plastic bag to eliminate any air gaps and prevent the silo from becoming overly oxygenated. The air is removed using a vacuum cleaner and tied with a rope. Finally, the silo was sealed using making tape to cover the entire surface and stored for 21 days. Data obtained were characteristics of physical and fermentation, nutrient content and fleigh score of silage. The results showed that increasing the level of tayuman supplementation increased ($P < 0.05$) pH value, NH_3 concentration, dry matter (DM), organic matter (OM), crude protein (CP), ether extract (EE), and decreased ($P < 0.05$) crude fiber (CF), and non-nitrogen free extract (NNFE). The level of tayuman supplementation had not significant effect ($P > 0.05$) on the fleigh score (FS) value with the highest FS in treatment P0 (77.80) and the lowest in treatment P3 (76.97). It was concluded that gama umami grass silage with tayuman supplementation in all treatments could not produce an ideal silage pH below 4.2. However, overall gama umami grass silage with tayuman supplementation in all treatments was classified as good silage quality in terms of FS in the range of 76.97 – 77.80. In addition, in terms of chemical composition, tayuman supplementation at the 30% level is the best supplementation level characterized by higher CP content. The supplementation of tayuman was able to increase the CP content of gama umami grass silage, without significantly reducing the silage quality.

Keywords: Fermentation Characteristics, Nutrient content, Gama Umami Grass, Silage, Tayuman