

**KUALITAS KIMIA DAN FISIK SILASE RUMPUT NAPIER PAKCHONG
(*Pennisetum purpureum cv. thailand*) PADA PEMBERIAN TEPUNG
JAGUNG DENGAN DOSIS YANG BERBEDA**

**MUTIARA NUR FAJRIN
NIM. 17021081**

INTISARI*

Tujuan penelitian ini adalah untuk mengetahui kualitas kimia dan fisik silase rumput Napier Pakchong (*Pennisetum purpureum cv. thailand*) pada pemberian tepung jagung dengan dosis yang berbeda. Penelitian ini telah dilakukan selama 3 bulan pada tanggal 31 Januari sampai 5 April 2022. Pembuatan silase di Green Harmony, Argorejo Sedayu, Bantul dan uji kualitas kimia dan fisik di Laboratorium Nutrisi Makanan Ternak dan Teknologi Hasil Ternak Program Studi Peternakan Fakultas Agroindustri Universitas Mercu Buana Yogyakarta. Materi yang digunakan adalah rumput Napier Pakchong (*Pennisetum purpureum cv. thailand*), tepung jagung dan air. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola searah dengan 4 perlakuan tepung jagung yang berbeda yaitu P0 0%, P1 10%, P2 20% dan P3 30% masing masing perlakuan terdiri dari 3 ulangan. Variabel yang diamati adalah kualitas kimia meliputi kadar air, kadar protein kasar dan kadar serat kasar serta kualitas fisik yaitu aroma, jamur, tekstur, dan warna. Data yang diperoleh dianalisis dengan *Analysis of variance* (ANOVA) bila berbeda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan untuk kualitas kimia rerata kadar air P0 77,39%; P1 73,25%; P2 71,03% dan P3 66,46%, kadar protein kasar P0 3,43%; P1 3,78%; P2 4,08% dan P3 6,00%, serat kasar P0 41,43%; P1 38,97%; P2 28,66% dan P3 26,36%, uji kualitas fisik rerata aroma P0 2,0; P1 1,8; P2 1,5 dan P3 1,3, jamur P0 1,9; P1 1,5; P2 1,4 dan P3 1,3, tekstur P0 2,0; P1 1,4; P2 1,2 dan P3 1,1, warna P0 2,2; P1 1,5; P2 1,3 dan P3 1,2. Hasil analisis variansi menunjukkan bahwa penambahan tepung jagung berbeda nyata ($P < 0,05$) yaitu menurunkan variabel kadar air, meningkatkan kadar protein kasar, menurunkan kadar serat kasar, aroma, jamur, tekstur dan warna. Berdasarkan hasil penelitian dapat disimpulkan bahwa kualitas kimia dan fisik silase rumput Napier Pakchong (*pennisentum purpureum cv. thailand*) yang terbaik adalah pada dosis tepung jagung 30%.

Kata kunci : Silase, rumput Napier, tepung jagung, kualitas kimia, kualitas fisik.

*Intisari Skripsi Sarjana Peternakan Program Studi Peternakan, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta, 2022.

**CHEMICAL AND PHYSICAL QUALITY OF NAPIERPAKCHONG
(*pennisetum purpureum cv. thailand*) GRASS SILAGE ON THE
ADDITION OF CORN FLOUR WITH DIFFERENT DOSAGE**

**MUTIARA NUR FAJRIN
NIM. 17021081**

ABSTRACT*

The aim of this study was to determine the chemical and physical quality of the silage of Napier Pakchong (*Pennisetum purpureum cv. Thailand*) grass in the application of corn flour with different doses. This research was carried out for 3 months from January 31 to April 5, 2022. Silage making in Green Harmony, Argorejo Sedayu, Bantul and chemical and physical quality tests at the Laboratory of Animal Food Nutrition and Animal Products Technology Animal Husbandry Study Program, Faculty of Agroindustry, Mercu Buana University Yogyakarta . The materials used were Napier Pakchong (*Pennisetum purpureum cv. thailand*) grass, corn flour and water. This study used a completely randomized design (CRD) with a one way pattern with 4 different treatments of corn flour, namely P0 0%, P1 10%, P2 20% and P3 30%, each treatment consisted of 3 replications. The variables observed were chemical quality including water content, crude protein content and crude fiber content as well as physical quality, namely aroma, mushroom, texture, and color. The data obtained were analyzed by Analysis of variance (ANOVA) if significantly different, followed by Duncan's New Multiple Range Test (DMRT). The results showed that for the chemical quality, the average water content of P0 was 77.39%; P1 73.25%; P2 71.03% and P3 66.46%, crude protein content P0 3.43%; P1 3.78%; P2 4.08% and P3 6.00%, crude fiber P0 41.43%; P1 38.97%; P2 28.66% and P3 26.36%, the average physical quality test of aroma P0 2.0; P1 1.8; P2 1.5 and P3 1.3, mushrooms P0 1.9; P1 1.5; P2 1.4 and P3 1.3, texture P0 2.0; P1 1.4; P2 1.2 and P3 1.1, color P0 2.2; P1 1.5; P2 1.3 and P3 1.2. The results of the analysis of variance showed that the addition of corn flour was significantly different ($P < 0.05$), namely reducing the water content variable, increasing the crude protein content, reducing the crude fiber content, aroma, fungus, texture and color. Based on the results of the study, it can be concluded that the best chemical and physical quality of Napier Pakchong (*pennisetum purpureum cv. thailand*) grass silage is at a dose of 30% corn flour.

Keywords: Silage, Napier grass, corn flour, chemical quality, physical quality

*Abstract Thesis of Animal Husbandry Study Program of Animal Husbandry,
Faculty of Agroindustry, Mercu Buana University Yogyakarta, 2022.