

ABSTRAK

GIRANI NUR HADANAH. Penelitian yang berjudul “Penambahan Sumber Fitobiotik dalam *Urea Molasses Block* Ditinjau dari Kecernaan Protein Kasar dan Serat Kasar secara *In Vitro*” dilaksanakan di *Green House* dan Laboratorium Ilmu Bahan Makanan Ternak, Fakultas Peternakan, Universitas Jenderal Soedirman, Purwokerto. Materi yang digunakan pada penelitian ini terdiri dari bahan fitobiotik berupa bawang putih, kunyit, temulawak, ciplukan, dan pegagan; *Urea Molasses Block*; pakan basal berupa rumput odot (40%), indigofera (20%), dan konsentrat Nutrifeed (40%) serta alat dan bahan analisis *in vitro*, analisis protein kasar, dan analisis serat kasar. Penelitian ini dilaksanakan secara eksperimental menggunakan Rancangan Acak Lengkap (RAL) pola searah. Perlakuan yang digunakan pada penelitian ini yaitu P_0 = Pakan basal + 1% UMB, P_1 = Pakan basal + 1% UMB plus tepung bawang putih 100 g/kg, P_2 = Pakan basal + 1% UMB plus tepung kunyit 50 g/kg, P_3 = Pakan basal + 1% UMB plus tepung temulawak 40 g/kg, P_4 = Pakan basal + 1% UMB plus tepung ciplukan 50 g/kg, dan P_5 = Pakan basal + 1% UMB plus tepung pegagan 25 g/kg. Variabel yang diukur adalah kecernaan protein kasar dan kecernaan serat kasar. Pakan dengan penambahan berbagai sumber fitobiotik dalam UMB memberikan pengaruh yang sangat nyata ($P < 0,01$) terhadap kecernaan protein kasar, dengan nilai rata-rata sebagai berikut: $P_0 = 80,86 \pm 0,39\%$, $P_1 = 79,06 \pm 1,12\%$, $P_2 = 81,12 \pm 0,24\%$, $P_3 = 82,28 \pm 0,37\%$, $P_4 = 84,98 \pm 1,42\%$, dan $P_5 = 78,39 \pm 1,29\%$. Pakan dengan penambahan berbagai sumber fitobiotik dalam UMB memberikan pengaruh yang sangat nyata ($P < 0,01$) terhadap kecernaan serat kasar, dengan nilai rata-rata sebagai berikut: $P_0 = 56,35 \pm 0,68\%$, $P_1 = 61,63 \pm 1,85\%$, $P_2 = 59,55 \pm 0,42\%$, $P_3 = 55,51 \pm 0,69\%$, $P_4 = 54,63 \pm 2,81\%$, dan $P_5 = 63,95 \pm 2,06\%$. *Urea Molasses Block* dengan penambahan tepung ciplukan 50 g/kg dapat meningkatkan kecernaan protein kasar sedangkan penambahan tepung pegagan 25 g/kg dapat meningkatkan kecernaan serat kasar.

Kata Kunci: Fitobiotik, UMB, kecernaan *in vitro* protein kasar, kecernaan *in vitro* serat kasar

ABSTRACT

GIRANI NUR HADANAH. The research titled “Addition of Phytobiotic Sources in Urea Molasses Block in Terms of In Vitro Digestibility of Crude Protein and Crude Fiber” was conducted in the Greenhouse and Laboratory of Animal Feed Science, Faculty of Animal Science, Jenderal Soedirman University, Purwokerto. The materials used in this study consisted of phytobiotic ingredients such as garlic, turmeric, Javanese turmeric, cape gooseberry, and centella; Urea Molasses Block; basal feed comprising odot grass (40%), indigofera (20%), and Nutrifed concentrate (40%) as well as tools and materials for in vitro analysis, crude protein analysis, and crude fiber analysis. This study was conducted experimentally using a Completely Randomized Design (CRD) with a one-way pattern. The treatments used in this study were P_0 = Basal feed + 1% UMB, P_1 = Basal feed + 1% UMB plus 100 g/kg garlic powder, P_2 = Basal feed + 1% UMB plus 50 g/kg turmeric powder, P_3 = Basal feed + 1% UMB plus 40 g/kg Javanese turmeric powder, P_4 = Basal feed + 1% UMB plus 50 g/kg cape gooseberry powder, and P_5 = Basal feed + 1% UMB plus 25 g/kg centella powder. The variables measured were crude protein digestibility and crude fiber digestibility. Feed supplemented with various phytobiotic sources in UMB had a highly significant effect ($P < 0.01$) on crude protein digestibility, with the following average values: $P_0 = 80.86 \pm 0.39\%$, $P_1 = 79.06 \pm 1.12\%$, $P_2 = 81.12 \pm 0.24\%$, $P_3 = 82.28 \pm 0.37\%$, $P_4 = 84.98 \pm 1.42\%$, and $P_5 = 78.39 \pm 1.29\%$. Feed supplemented with various phytobiotic sources in UMB also had a highly significant effect ($P < 0.01$) on crude fiber digestibility, with the following average values: $P_0 = 56.35 \pm 0.68\%$, $P_1 = 61.63 \pm 1.85\%$, $P_2 = 59.55 \pm 0.42\%$, $P_3 = 55.51 \pm 0.69\%$, $P_4 = 54.63 \pm 2.81\%$, and $P_5 = 63.95 \pm 2.06\%$. Urea Molasses Block with the addition of 50 g/kg cape gooseberry powder can increase crude protein digestibility, while the Urea Molasses Block with the addition of 25 g/kg centella powder can increase crude fiber digestibility.

Keywords: Phytobiotic, UMB, in vitro crude protein digestibility, in vitro crude fiber digestibility