RINGKASAN

ARDIAN KHANIFU RIZQI. Penelitian yang berjudul kecernaan bahan kering dan bahan organik klobot jagung, tongkol jagung, kulit bawang putih, dan daun sengon secara *in vitro* dan bertujuan untuk mengetahui kecernaan bahan kering dan bahan organik yang paling baik dari tongkol jagung, klobot jagung, kulit bawang putih dan daun sengon secara *in vitro*. Materi yang digunakan berupa klobot jagung, tongkol jagung, kulit bawang putih, dan daun sengon, konsentrat yang terdiri dari pollard, bungkil kelapa, onggok, bekatul, jagung, garam, dolomit, starvit dan mineral. Imbangan kosentrat dengan hijauan yang digunakan adalah 70 : 30.

Penelitian menggunakan metode eksperimental secara *in vitro* dilaksanakan di Laboratorium Ilmu Nutrisi dan Makanan Ternak. Rancangan penelitian yang digunakan yaitu rancangan acak lengkap dengan 4 perlakuan dan 5 ulangan. Perlakuan yang diuji yaitu P1 (30% klobot jagung + 70% konsentrat), P2 (30% tongkol jagung + 70% konsentrat), P3 (30% kulit bawang putih + 70% konsentrat), dan P4 (30% daun sengon + 70% konsentrat). Peubah yang diamati yaitu kecernaan bahan kering dan kecernaan bahan organik. Data dihitung dengan menggunakan persamaan aljabar kemudian dianalisis menggunakan analisis variansi dan diuji lanjut dengan uji beda nyata jujur (BNJ).

Hasil penelitian menunjukan bahwa perlakuan berpengaruh sangat nyata (P<0.01) terhadap kecernaan bahan kering dan kecernaan bahan organik. Berdasarkan uji beda nyata jujur (BNJ) dengan membandingkan nilai tengah perlakuan didapatkan bahwa kecernaan bahan kering antara P1 (26,04 ± 2,41) vs P3 (14,19 ± 2,70), P2 (20,72 ± 3,05) vs P3 (14,19 ± 2,70), P4 (23,43 ± 2,45) vs P3 (14,19 ± 2,70) berbeda sangat nyata (P<0,01), P1(26,04 ± 2,41) vs P2 (20,72 ± 3,05) berbeda nyata (P<0,05) dan P1 (26,04 ± 2,41) vs P4 (23,43 ± 2,45), P4 (23,43 ± 2,45) vs P2 (20,72 ± 3,05) berbeda tidak nyata (P>0,05). kecernaan bahan organik antara P1 (26,58 ± 2,11) vs P3 (14,77 ± 2,84), P4 (24,75 ± 2,65) vs P3 (14,77 ± 2,84) berbeda sangat nyata (P<0,01), P2 (20,76 ± 3,56) vs P3 (14,77 ± 2,84), P1 (26,58 ± 2,11) vs P2 (20,76 ± 3,56) berbeda nyata (P<0,05) dan P1 (26,58 ± 2,11) vs P4 (24,75 ± 2,65), P4 (24,75 ± 2,65) vs P2 (20,76 ± 3,56) berbeda tidak nyata (P>0,05). Berdasarkan hasil penelitian dapat disimpulkan bahwa kecernaan bahan kering yang tinggi adalah klobot jagung dan daun sengon (23,43 – 26,04), yang medium adalah tongkol jagung (20,72 - 23,43) dan yang rendah adalah kulit bawang putih (14,19) dan kecernaan bahan organik yang tinggi adalah klobot jagung dan daun sengon (24,75 – 26,58), yang medium adalah tongkol jagung (20,76 - 24,75) dan yang rendah adalah kulit bawang putih (14,77).

Kata kunci : kecernaan bahan kering, kecernaan bahan organik, klobot jagung, tongkol jagung, kulit bawang putih, daun sengon.

SUMMARY

ARDIAN KHANIFU RIZQI. The research entitled dry matter digestibility and organic matter digestibility of corn husk, corn cob, garlic husk, and sengon leaf by in vitro and this research aimed to find out the dry matter digestibility and organic matter digestibility of corn husk, corn cob, garlic husk, and sengon leaf. The material used in the research were corn husk, corn cob, garlic husk, and sengon leaf, concentrate comprised pollard, coconut cake, cassava waste, rice bran, corn, salt, dolomite, starvit and minerals. The ratio of concentrate and grass used was 70 : 30.

The research method was experimental *in vitro* conducted in Animal Nutrition and Feed Laboratory by using Completely Randomized Design (CRD) with 4 treatments and 5 replications. The treatments used were P1 (30% corn husk + 70% concentrate), P2 (30% corn cob + 70% concentrate), P3 (30% garlic husk + 70% concentrate), dan P4 (30% sengon leaf + 70% concentrate). Variables measured were dry matter digestibility and organic matter digestibility. Data were calculated by using an algebraic method then data were analyzed using analysis of variance and followed by Honest Significant Difference (HSD) test.

The results showed that treatment had a highly significant effect (P<0,01) for dry matter digestibility and organic matter digestibility. Based on Honestly Significant Difference (HSD) test results by compared the median value of treatment showed that dry matter digestibility between P1 (26,04 ± 2,41) vs P3 (14,19 ± 2,70), P2 (20,72 ± 3,05) vs P3 (14,19 ± 2,70), P4 (23,43 ± 2,45) vs P3 (14,19 ± 2,70) were highly significant different (P<0,01), P1(26,04 ± 2,41) vs P2 (20,72 ± 3,05) was significant different (P<0,05) and P1 (26,04 ± 2,41) vs P4 (23,43 ± 2,45), P4 (23,43 ± 2,45) vs P2 (20,72 ± 3,05) were not significant different (P>0,05). Organic matter digestibility between P1 (26,58 ± 2,11) vs P3 (14,77 ± 2,84), P4 (24,75 ± 2,65) vs P3 (14,77 ± 2,84) were highly significant different (P<0,01), P2 (20,76 ± 3,56) vs P3 (14,77 ± 2,84), P1 (26,58 ± 2,11) vs P2 (20,76 ± 3,56) were significant different (P<0,05) and P1 (26,58 ± 2,11) vs P4 (24,75 ± 2,65), P4 (24,75 ± 2,65) vs P2 (20,76 ± 3,56) were not significant different (P>0,05). Conclusion of this research were the highest dry matter digestibility were corn husk and sengon leaf (23,43 – 26,04), the medium was corn cob (20,72 - 23,43) and the lowest was garlic husk (14,19) and the highest organic matter digestibility were corn husk and sengon leaf (24,75 – 26,58), the medium was corn cob (20,76 - 24,75) and the lowest was garlic husk (14,77).

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Key words : dry matter digestibility, organic matter digestibility, corn husk, corn cob, garlic husk, sengon leaf.