RINGKASAN

IVA AULIA RAKHMA. Penelitian yang berjudul kadar VFA dan N-NH_3 pada klobot jagung, tongkol jagung, kulit bawang putih, dan daun sengon secara *in vitro* dan bertujuan untuk mengetahui kadar VFA dan N-NH_3 paling optimal dari klobot jagung, tongkol jagung, kulit bawang putih, dan daun sengon. Materi yang digunakan berupa klobot jagung, tongkol jagung, kulit bawang putih, dan daun sengon, konsentrat yang terdiri dari pollard, bungkil kelapa, onggok, mineral, dedak padi, dan urea. 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 kadar VFA dan N-NH_3. 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 VFA dan N-NH_3. Rataan kadar VFA pada perlakuan P1, P2, P3, dan P4 berkisar antara 104,7 mM – 138,0 mM. Berdasarkan uji beda nyata jujur (BNJ), kadar VFA perlakuan P1, P2 dan P4 berbeda tidak nyata sedangkan perlakuan P3 nyata lebih besar dibandingkan perlakuan P1, P2, dan P4. Rataan kadar N-NH_3 pada perlakuan P1, P2, P3, dan P4 berkisar antara 9,7– 14,8 mM. Berdasarkan uji beda nyata jujur (BNJ), kadar N-NH_3 perlakuan P2, P3, dan P4 berbeda tidak nyata sedangkan perlakuan P1 berbeda nyata dengan P3 dan P4. Kadar VFA dan N-NH_3 yang diperoleh berada dalam kisaran normal.

Kata kunci : VFA, N-NH_3, klobot jagung, tongkol jagung, kulit bawang putih, daun sengon.

SUMMARY

IVA AULIA RAKHMA. The research entitled Levels of VFA and N-NH_3 on corn husk, corn cob, garlic husk, and sengon leaf. The aim of this research was to find out the optimum levels of VFA and N-NH_3 on 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, as well as concentrate comprising pollard, copra meal, cassava, minerals, rice bran and urea. The ratio of concentrate and grass used was 70 : 30%.

The research method was experimental *in vitro* at animal nutrition and feed laboratory. 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). The variables were the levels of VFA and N-NH_3. Data were calculated by using an algebraic method then data were analysed using analysis of variance and followed by honest significant difference (HSD) test.

The research showed that treatment were significant effect ($P<0,01$) on VFA and N-NH_3. The average of VFA on treatments were P1, P2, P3, and P4 between 104,7 mM – 138,0 mM. Based on the test honest significant difference (HSD), the level of VFA treatments P1, P2, and P4 were not significantly different but P3 treatment significantly than P1, P2, and P4 treatments. The average of N-NH_3 on treatments were P1, P2, P3, and P4 between 9,7 mM – 14,8 mM. The levels of VFA and N-NH3 on treatments were normally. Based on the test honest significant difference (HSD), the level of VFA treatments P2, P3, and P4 were not significantly different but P1 treatment significantly different with P3 and P4. The levels of VFA and N-NH_3 on all treatments within the normal range.

Keywords : VFA, N-NH_3, corn husk, corn cob, garlic husk, sengon leaf.