

DEGRADASI *IN SACCO* JERAMI KEDELAI PADA SAPI PERANAKAN ONGOLE DAN KERBAU YANG MENDAPATKAN PAKAN BERBEDA

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INTISAM

Penelitian ini bertujuan untuk mengetahui perbandingan degradasi bahan kering (BK) dan bahan organik (BO) secara *in sacco* jerami kedelai dalam rumen sapi peranakan Ongole betina dan kerbau jantan dan betina yang masing-masing difistula yang mendapatkan pakan berbeda. Pada penelitian ini terdapat dua periode, periode pertama terak diberikan pakan jerami kedelai sebagai pakan tunggal (*ad libitum*) dan yang kedua diberikan pakan standar yang terdiri dari rumput saja dan konsentrat (70:30%). Adaptasi pakan untuk masing-masing periode dilakukan selama 2 minggu. Sampel jerami kedelai yang ada dalam kantong nilon diinkubasikan ke dalam rumen terak melalui fistula dengan jam inkubasi 4,8,16,24,48,72 dan 96. Degradasi Teori (DT) dihitung dengan rumus $DT = a + (b \times c) / (c + K_p)$ dan dianalisis variansi dengan model faktorial 2x2. Pada awal koleksi dilakukan pengambilan data kinetik pH dan NH₃ rumen. Hasil penelitian menunjukkan rerata kinetik pH selama 8 jam pemberian pakan untuk pakan tunggal dan pakan standar tidak berbeda nyata, sedang untuk pH sapi PO lebih tinggi ($P < 0,05$) dibanding kerbau yaitu 6,93 vs 6,67. Konsentrasi Mfe pada pakan tunggal dan pakan standar tidak berbeda nyata, sedang pada sapi PO lebih rendah ($P < 0,05$) dibanding kerbau yaitu 13,73 mg/100ml vs 21,05 mg/100ml. Nilai DT BK dan BO pada pakan standar lebih tinggi ($P < 0,05$) dibanding pakan tunggal masing-masing yaitu 38,92 vs 36,83; 40,60 vs 38,86, sedang nilai DT BK dan BO pada sapi PO lebih tinggi ($P < 0,05$) dibanding kerbau masing-masing yaitu 39,27 vs 36,47; 40,51 vs 38,95. Dari hasil penelitian dapat disimpulkan bahwa degradasi *in sacco* jerami kedelai pada terak yang diberikan pakan standar lebih tinggi dibanding terak yang diberikan pakan tunggal, dan nilai degradasi *in sacco* jerami kedelai pada sapi PO lebih tinggi dibanding pada kerbau. Terdapat interaksi diantara faktor pakan dan spesies terhadap nilai DT BK.

(Kata kunci : Jerami kedelai, Pakan standar, Sapi peranakan Ongole, Kerbau, Degradasi *in sacco*)

IN SACCO DEGRADATION OF SOYBEAN STRAW IN ONGOLE CROSSBRED CATTLE AND BUFFALO FED DIFFERENT RATIONS

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ABSTRACT

Tills experiment was done to determine *in sacco* degradation of dry matter (DM) and organic matter (OM) in female fistulated Ongole crossbred cattle and male and female buffaloes fed with different rations. The feeding consisted of two periods. In the first period all animals were given soybean straw as single feed (*ad libitum*) and second period were given standard feed (King grass and concentrate with the ratio of 70%:30%). Time adaptation in each period was two weeks. Samples of soybean straw were incubated in the rumen for 4, 8, 16, 24, 48, 72, and 96 hours. Degradation Theory (DT) was calculated by $DT = a + (bxc)/(c + Kp)$ and analyses of variance were used to determine the effect of treatment using 2x2 factorial design. Rumen ammonia and pH data were collected to determine their kinetic during the experiment. The result showed that the mean of pH kinetic for 8 hours fed single feed and standard feed was not significant, even though pH of Ongole crossbred cattle higher ($P < 0.05$) than that of buffalo of 6.93 vs 6.67. Ammonia concentration of single feed and standard feed was not different, while in cattle was lower ($P < 0.05$) than that of buffalo of 13.73 vs 21.05 mg/100ml. DT of DM and OM of standard feed was higher ($P < 0.05$) than that of single feed of 38.92 vs 36.83; 40.60 vs 38.86, while DT of DM and OM of cattle was higher ($P < 0.05$) than that of buffalo of 39.27 vs 36.47; 40.51 vs 38.95. It can be concluded that *in sacco* degradation of DM and OM of soybean straw incubated in standard feed was higher than that of single feed, and the degradation of DM and OM of soybean straw was incubated in cattle was higher than that of buffalo and there were interactions between feed and species for DT of DM.

(Key Words : Soybean Straw, Standard Feed, Ongole Crossbred Cattle, Buffalo,
In Sacco Degradation)