PENGARUH *FLUSHING PREMATING* DENGAN SUPLEMENTASI SUMBER PROTEIN *SPIRULINA sp.* TERHADAP KINERJA INDUK DOMBA PASCA BERANAK

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INTISARI

Pakan *flushing premating* merupakan upaya perbaikan nutrien induk dengan penambahan *Spirulina sp.* untuk persiapan sebelum perkawinan, sehingga setelah beranak dan masa menyusui induk segera birahi. Penelitian ini bertujuan untuk melihat pengaruh pakan flushing premating terhadap kinerja induk domba pasca beranak. Penelitian dilakukan pada bulan Agustus 2020-Maret 2021 di peternakan rakyat Mendo Galak Farm, Yogyakarta. Materi yang digunakan 20 ekor domba induk umur 2-3 tahun dengan BCS 2-3, kondisi bunting tua, dipelihara dalam kandang individu, diberi pakan standar berupa kangkung kering dan konsentrat, ditunggu sampai beranak. Satu bulan setelah beranak, dibagi dua kelompok; kelompok dengan pakan *flushing* (protein kasar 14,92%, *total digestible nutrients* 60,28%) dan kelompok pakan standar (protein kasar 11,82%, total digestible nutrients 53,20%). Pakan *flushing* diberikan setelah induk beranak umur satu bulan, sebanyak 3,89% untuk kontrol dan *flushing* 4,97% bahan kering. Perlakuan *flushing* dengan suplementasi yaitu penambahan pakan basal dengan 1,67% *Spirulina sp.* dari pakan. Selanjutnya semua induk dipindah ke kandang koloni, dengan diberi pakan sama, yaitu pakan standar. Dalam kandang koloni disediakan pejantan fertil. Pengamatan terhadap induk dilakukan sampai induk menunjukkan tanda-tanda birahi. Data konsumsi pakan dicatat setiap hari selama perlakuan flushing; data untuk melihat kecernaan in vivo dilakukan selama 7 hari di akhir periode *flushing*. Penimbangan bobot badan induk dan anak, serta penilaian BCS dilakukan setiap bulan. Tanggal *postpatum estrus* (PPE) di catat. Koleksi darah untuk analisis profil hematologi dan metabolit darah dilakukan sebelum dan setelah uji in vivo. Data konsumsi dan kecernaan pakan, bobot badan, BCS, PPE, hematologi, dan metabolit darah antar kelompok diuji dengan t-test dengan bantuan program SPSS versi 22. Hasil penelitian menunjukkan bahwa terdapat perbedaan ($P<0,05$) konsumsi metabolis induk dan anak serta kecernaan PK dan nutrient tercerna induk. Profil hematologi induk antar perlakuan tidak berbeda nyata ($P>0,05$) kecuali Hemoglobin induk berbeda nyata sebelum dan setelah perlakuan pakan ($P<0,05$), namun semua ternak dalam kisaran normal. Untuk metabolit darah, hanya kadar urea kelompok *flushing* berbeda nyata ($P<0,05$). Bobot badan induk dan anak domba serta PBBH induk antar perlakuan pakan berbeda nyata ($P<0,05$), sedangkan PPE tidak ada perbedaan nyata ($P>0,05$); untuk kontrol dan *flushing* berturut-turut adalah 77,60±14,65 dan 73,90±11,55 hari. Disimpulkan bahwa perlakuan *flushing premating* dengan penambahan *Spirulina sp.* pasca beranak tidak berpengaruh terhadap kinerja induk domba pasca beranak yang dipelihara dengan sistem intensif, dilihat dari indikator konsumsi dan kecernaan pakan, hematologi dan metabolit darah, bobot badan, BCS, dan *postpartum estrus*.

Kata kunci: *Flushing premating*, *Spirulina sp.*, Kinerja Induk Domba

THE EFFECT OF PREMATING FLUSHING WITH SPIRULINA sp. AS A PROTEIN SUPPLEMENTATION ON THE EWE POSTPARTUM MATING

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ABSTRACT

Premating flushing feed is an effort to improve ewe nutrients by adding *Spirulina sp.* for preparation before mating so that after lambing and suckling, the ewe express estrus immediately. This study aimed to examine the effect of flushing feed offered to the ewe after lambing on the performances. The research was conducted in the Mendo Galak Farm. The materials used were 20 ewes aged 2-3 years with BCS 2-3, 4-month-old of gestation, kept in an individual pen, given control feed in the form of dried water spinach and commercial concentrate, and waited until they had lambing. A month after postpartum, ewes were divided into two groups with flushing feed (crude protein 14.92%, total digestible nutrients 60.28%) and the control feed group (11.82% crude protein, total digestible nutrients 53.20). Flushing fed offered to ewe on lactation day-30, as much as 3.89% for control and 4.97% for flushing based on dry matter. Flushing treatment with supplementation is an additional 1.67% Spirulina sp. of basal fed. Furthermore, all the ewe were transferred to the colony pen, offered to basal fed. In the colony pen is given a ram, observations until ewes were appearance sign of PPE. Feed intake and digestibility data were recorded daily during the flushing period. Weighing of ewe and lamb body weights and BCS assessments were measured every month. Blood collection was performed before and after in vivo assays. Data on feed intake and digestibility, body weight, BCS, postpartum estrus (PPE), hematology, and blood metabolites between groups were tested by T-test SPSS ver. 22. The results showed a significant difference ($P<0.05$) in the metabolic feed intake of ewe and lamb, and also the digestibility of CP and ewe's digestible nutrients. The ewe's hemoglobin was significantly different ($P<0.05$), all hematological profiles of ewes were in the normal blood level. All blood metabolites of the flushing group were significantly different ($P<0.05$). Body weights and ADG of ewes were significantly different ($P<0.05$), while there was no significant difference in PPE ($P>0.05$); for control and flushing were 77.60±14.65 and 73.90±11.55 days, respectively. It was concluded that the premating flushing with the addition of Spirulina sp. does not affect the performance of postpartum ewes that were reared in an intensive system, seen from indicators of feed intake and digestibility, hematology and blood metabolites, body weight, BCS, and PPE.

Keywords: Flushing premating, *Spirulina sp.*, Ewe performances.