

PENGARUH PEMBERIAN AIR MINUM SECARA TERBATAS DIBANDINGKAN AD LIBITUM TERHADAP TINGKAH LAKU, KONSUMSI, SERTA METABOLIT DARAH SAPI INDUK PADA BERBAGAI FASE FISIOLIS

INTISARI

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Penelitian ini bertujuan untuk mengetahui pengaruh pemberian air minum terbatas dibanding dengan *ad libitum* terhadap tingkah laku, konsumsi, dan profil metabolit darah sapi induk pada berbagai fase fisiologis. Dengan rancangan acak lengkap pola faktorial 2x3, dilakukan penelitian perbedaan pemberian air minum pada induk Peranakan Ongole (PO) berbeda fase fisiologisnya yaitu 3 ekor induk kosong, 4 ekor bunting, dan 3 ekor laktasi. Kelompok P1, pemberian terbatas sesuai kebiasaan peternak di kelompok ternak Mergo Andhini Makmur, selanjutnya diberi air minum *ad libitum* (P2), dengan masa adaptasi selama satu bulan. Parameter yang diamati adalah tingkah laku (frekuensi minum, makan, defekasi, urinasi, lama makan, dan kecepatan makan), konsumsi air, bahan kering (BK), bahan organik (BO), pencernaan BK dan BO, serta profil metabolit darah (glukosa, total protein, ureum, kolesterol). Hasil penelitian menunjukkan terdapat perbedaan ($P < 0,05$) antara P1 dan P2 pada frekuensi dan konsumsi air, serta frekuensi makan. Perbedaan status fisiologis sapi induk menyebabkan perbedaan ($P < 0,05$) pada konsumsi air minum dan pencernaan pakan. Ada interaksi antara cara pemberian air minum dan status fisiologis pada konsumsi air ($P < 0,05$). Pemberian air minum terbatas (P1) menyebabkan kadar ureum, protein, dan kolesterol lebih tinggi ($P < 0,05$), namun masih dalam kisaran normal. Disimpulkan perubahan cara pemberian air minum dari terbatas menjadi *ad libitum* merubah profil metabolit darah tetapi tidak merubah konsumsi dan pencernaan pakan sapi PO induk dengan fase fisiologis kosong, bunting dan laktasi.

Kata kunci: Pemberian air minum terbatas, Sapi induk PO, Tingkah laku, Konsumsi, Profil metabolit darah.

THE INFLUENCE OF LIMITED ACCESS TO DRINKING WATER COMPARE WITH AD LIBITUM ON BEHAVIORS, CONSUMPTION, AND BLOOD METABOLITES PROFILES OF COWS IN VARIOUS PHYSIOLOGICAL PHASES

ABSTRACT

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This research was aimed to determine the influence of limited access to drinking water compared to ad libitum on the behavior, consumption, and blood metabolites profile in various physiological phases of Ongole crossbred cows. By using the completely randomized factorial design of 2x3, research of different access to water drinking was done. Three dry, four pregnant, and three lactation phases cows, first, got limited water accessed (P1) according to the habit of the Mergo Andhini Makmur farmer group, and then continued ad libitum access to drinking water (P2), with one month period of adaptation. The results showed there was a difference ($P < 0.05$) between P1 and P2 on the frequency and consumption of water, as well as feeding frequencies. The physiological phases of the cow were causing a difference in the consumption of drinking water and feed digestibility. There is an interaction between the access to drinking water and the physiological status of water consumption ($P < 0.05$). Provision of limited access to drinking water (P1) causes higher levels of ureum, protein, and cholesterol ($P < 0.05$), but still within the normal range. It was concluded that the change in the drinking water access from limited to ad libitum changes the profile of blood metabolites but does not increase the consumption and digestibility of feed of Ongole crossbred cows on different physiological phase.

Keywords: Limited drinking water, Ongole crossbred cow, Behavior, Feed consumption, Blood metabolite profile.