

INTISARI

Pengaruh Pemberian Multi Mineral Blok (MMB) Jenis A dan B Terhadap Kadar Magnesium dan Kalium Pada Sapi Potong Peranakan Ongole di Kelompok Ternak Desa Tambirejo, Toroh, Grobogan

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Mineral merupakan suatu komponen penyusun tubuh makhluk hidup yang berperan penting bagi metabolisme tubuh. Keseimbangan mineral dapat diperoleh dari kualitas pakan yang baik dan pemberian suplemen tambahan seperti mineral blok. Penelitian ini bertujuan untuk mengevaluasi kadar magnesium (Mg) dan kalium (K) dalam darah sebelum dan sesudah pemberian Multi Mineral Blok (MMB) jenis A dan B pada sapi Peranakan Ongole di kelompok ternak desa Tambirejo, Toroh, Grobogan. Penelitian ini menggunakan 10 sampel sapi potong Peranakan Ongole secara acak. Lima sampel (kelompok 1) diberikan MMB A dan 5 sampel (kelompok 2) diberikan MMB B selama 1 bulan. Pengambilan darah melalui vena jugularis sebanyak 2,5 ml pada kedua kelompok tersebut dilakukan sebelum dan sesudah perlakuan untuk mengetahui kadar Mg dan K. Darah disimpan di *vacuum tube* tanpa koagulan, disentrifugasi 2455 rpm selama 10 menit. Serum diambil dan dilakukan analisis mineral Mg dan K menggunakan metode elektroda ion selektif (*Ion Selective Electrode/ISE*). Hasil penelitian menunjukkan pada kelompok 1 sebelum diberikan perlakuan kadar rata-rata Mg 1,978 mg/dL dan setelah pemberian MMB A kadar rata-rata Mg 2,278 mg/dl. Kadar rata-rata K sebelum pemberian MMB A yaitu 5,66 mmol/l, sesudah pemberian MMB A 5,24 mmol/l. Pada kelompok 2 kadar rata-rata Mg sebelum perlakuan 2,338 mg/dl, sesudah pemberian MMB B menjadi 2,49 mg/dl. K sebelum perlakuan 5,52 mmol/l, sesudah pemberian MMB B menjadi 5,22 mmol/l. Hasil t-test menunjukkan kadar Mg dan K mengalami perubahan yang tidak signifikan ($p > 0,05$) dengan pemberian MMB A maupun MMB B. Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian MMB A dapat menaikkan kadar Mg sebesar 30% dan menurunkan kadar K sebesar 42%. Pemberian MMB B dapat menaikkan kadar Mg sebesar 15% dan menurunkan kadar K sebesar 30%. MMB A memberikan pengaruh yang lebih besar terhadap kenaikan kadar Mg dan penurunan kadar K.

Kata Kunci : makromineral, magnesium, kalium, MMB A, MMB B, sapi Peranakan Ongole

ABSTRAK

Effect of Multi Mineral Block (MMB) type A and B to Magnesium and Potassium
in Ongole Cattle Crossbreed in Livestock Group of Tambirejo Village, Toroh,
Grobogan

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Mineral is a components in living things which has a important role for body metabolism. The balance of mineral can be reached from good quality of food and supplement such as mineral block. This research purpose is to evaluating magnesium and kalium concentration in blood before and after fed by multi mineral block A and B in ongole cattle crossbreed in livestock group at tambirejo village, toroh, grobogan. This research use 10 samples of ongole cattle randomly. Five samples (group 1) fed with MMB A and five others (group 2) fed with MMB B for 1 month. Blood collection was taken from jugular vein for 2,5 ml before and after fed with MMB. The blood stored in vaccum tube without coagulant, sentifugated at 2455 rpm for about 10 minutes. The serum collected and used to analyze Mg and K minerals with electrode ion selective method. The result shows at group 1 before fed with MMB A the average of Mg was 1,978 mg/dl and after fed with MMB the average was 2,278 mg/dl. Average of K before and after was 5,66 mmol/l and 5,24 mmol/l. in group 2 the average of Mg before and after fed with MMB B was 2,338 mg/dl and 2,49 mg/dl. K concentration before and after was 5,52 mmol/l and 5,22 mmol/l. T-test results shows that the Mg and K concentration has not change significantly ($p>0,05$) with fed by MMB. The conclusion from the research is the MMB A give the Mg concentration rise for 30% and reduces K concentration for 42%. MMB B give Mg concentration rise 15% and K reduces by 30%. MMB A give more significant change to concentration of Mg and K in blood.

Key words: macromineral, magnesium, potassium, MMB A, MMB B, Peranakan Ongole