

RINGKASAN

IFA MUTHIA PUTRI SYUKUR. Penelitian berjudul Konsumsi Bahan Kering dan Bahan Organik Pakan Sapi Madura yang Disuplementasi Tepung Bawang Putih (*Allium sativum*), Mineral Organik (Zn-Lisinat dan Cr Organik). Penelitian ini bertujuan untuk mengkaji jumlah konsumsi bahan kering dan bahan organik pakan sapi Madura yang disuplementasi tepung bawang putih (*Allium sativum*) dan mineral organik (Zn-Lisinat dan Cr Organik). Penelitian dilaksanakan pada 28 April 2018 sampai dengan 22 September 2018 di Kandang Dawuhan Multifarm, Kedungbanteng, Banyumas dan Laboratorium Ilmu Bahan Makanan Ternak, Fakultas Peternakan, Universitas Jenderal Soedirman, Purwokerto, Jawa Tengah. Materi yang digunakan terdiri atas 18 ekor sapi Madura jantan dengan rata-rata bobot awal $253 \pm 18,97$ kg, pakan yang terdiri atas 25% jerami, 25% tebon jagung dan 50% konsentrat, air minum, mineral chromium organik 0,75 ppm, zink-lisinat 40 ppm, tepung bawang putih (*Allium sativum*) 250 ppm, ember, timbangan analitik dengan ketelitian 0,05 kg, timbangan analitik dengan ketelitian 0,001 kg serta seperangkat alat analisis kadar air dan kadar abu. Metode penelitian yang digunakan adalah eksperimen secara *in vivo* dengan Rancangan Acak Lengkap (RAL) menggunakan 3 perlakuan dan 6 ulangan. Perlakuan terdiri atas R0 : kontrol (pakan basal) ; R1 : pakan basal + 250 ppm tepung bawang putih ; R2 : pakan basal + 250 ppm tepung bawang putih + 40 ppm Zn-Lisinat + 0,75 ppm Cr Organik.

Hasil penelitian menunjukkan bahwa konsumsi bahan kering (BK) sapi Madura dengan perlakuan R0, R1 dan R2 masing-masing sebesar $7,51 \pm 0,63$ kg/ekor/hari ; $8,08 \pm 0,70$ kg/ekor/hari dan $7,56 \pm 0,56$ kg/ekor/hari, sedangkan konsumsi bahan kering per bobot badan R1, R2, dan R3 masing-masing sebesar $2,45 \pm 0,13\%$; $2,36 \pm 0,09\%$ dan $2,45 \pm 0,10\%$. Rataan konsumsi bahan organik (BO) perlakuan R0, R1 dan R2 masing-masing $5,62 \pm 0,46$ kg/ekor/hari ; $6,05 \pm 0,52$ kg/ekor/hari dan $5,65 \pm 0,43$ kg/ekor/hari. Analisis variansi menunjukkan bahwa suplementasi tepung bawang putih dan mineral organik (Zn-lisinat dan Cr organik) tidak meningkatkan konsumsi bahan kering (BK) dan bahan organik (BO) pakan sapi Madura secara signifikan, namun suplementasi tepung bawang putih saja cenderung meningkatkan konsumsi bahan kering.

Kata kunci : bawang putih, *Allium sativum*, Zn-lisinat, Cr organik, konsumsi bahan kering, konsumsi bahan organik, sapi Madura.

SUMMARY

IFA MUTHIA PUTRI SYUKUR. The study entitled “Dry Matter and Organic Matter Intake of Madura’s Cattle Feed that Supplemented with Garlic Powder (*Allium sativum*), Organic Minerals (Zn-Lysinate and Cr Organic)”. The study aims to assess the amount of dry matter and organic matter intake of Madura’s cattle feed that was supplemented with garlic powder (*Allium sativum*) and organic minerals (Zn-Lysinate and Cr Organic). The study was conducted on April 28th to September 22nd 2018 at Dawuhan Multifarm, Kedungbanteng, Banyumas and Laboratory of Animal Feedstuff Science, Faculty of Animal Science, Jenderal Soedirman University, Purwokerto, Central Java. Materials used on this study are 18 Madura’s cattle with an average initial weight of $253 \pm 18,97$ kg, feed consisting of 25% hay, 25% tebon and 50% concentrate, drinking water, organic chromium 0.75 ppm, zinc-lysinate 40 ppm, garlic powder (*Allium sativum*) 250 ppm, bucket, analytical scales with accuracy of 0.05 kg, analytical scales with accuracy of 0.001 kg and a set of water content and ash content analysis tools. The study method used an experiment *in vivo* with a completely randomized design (CRD) using 3 treatments and 6 replicates. Treatment consists of R0: control (basal feed); R1: basal feed + 250 ppm garlic powder; R2: basal feed + 250 ppm garlic powder + 40 ppm Zn-Lysinate + 0.75 ppm Cr Organic. The results showed that the dry matter intake (DMI) of Madura’s cattle with treatments R0, R1 and R2 were 7.51 ± 0.63 kg / head / day respectively; 8.08 ± 0.70 kg / head / day and 7.56 ± 0.56 kg / head / day, while dry matter intake per body weight R1, R2, and R3 were $2.45 \pm 0.13\%$; $2.36 \pm 0.09\%$ and $2.45 \pm 0.10\%$. The result of organic matter intake (OMI) treatments R0, R1 and R2 were 5.62 ± 0.46 kg / head / day, 6.05 ± 0.52 kg / head / day and 5.65 ± 0.43 kg / head / day. Supplementation of garlic powder and organic minerals (Zn-lysinate and Cr organic) did not significantly increase dry matter intake (DMI) and organic matter intake (OMI) but supplementation of garlic powder only disposed increase dry matter intake (DMI) in Madura’s cattle feed.

Keywords: garlic powder, *Allium sativum*, Zn-lysinate, Cr organic, dry matter intake, organic matter intake, Madura cattle.