

**PENGARUH PEMBERIAN NANO ENKAPSULASI EKSTRAK BUAH
SENDUDUK (*Melastoma malabathricum* L.) TERHADAP
KINERJA PERTUMBUHAN DAN PROFIL LIPID
AYAM BROILER**

INTISARI

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Penelitian ini bertujuan untuk mengkaji pengaruh dari nano enkapsulasi ekstrak buah senduduk sebagai aditif pakan yang diberikan melalui air minum terhadap profil lipid ayam broiler. Rancangan percobaan yang digunakan dalam penelitian adalah rancangan acak lengkap (RAL) menggunakan 6 perlakuan penambahan ekstrak antosianin pada air minum ayam masing-masing diulang 5 ulangan. Rincian perlakuan ransum adalah sebagai berikut: T0 perlakuan air minum tanpa aditif pakan (kontrol negatif), T1 perlakuan air minum + 0,2 mg/kg bobot badan simvastatin (kontrol positif), T2 perlakuan air minum + 1,5 % ekstrak buah senduduk, T3 perlakuan air minum + 3,0% ekstrak buah senduduk, T4 perlakuan air minum + 1,5% nano enkapsulasi ekstrak buah senduduk, T5 perlakuan air minum + 3,0% nano enkapsulasi ekstrak buah senduduk. Parameter yang diamati yaitu profil lemak darah, kolesterol daging, lemak abdominal dan lemak viseral ayam broiler. Hasil penelitian ini yaitu pemberian nano enkapsulasi ekstrak buah senduduk memberikan pengaruh yang nyata ($P < 0,05$) terhadap penurunan kolesterol daging ayam broiler. Pemberian nano enkapsulasi ekstrak buah senduduk tidak memberikan pengaruh yang nyata terhadap kinerja pertumbuhan, profil lipid darah, lemak kasar daging paha dan dada ayam broiler lemak abdominal, dan lemak viseral. Kesimpulan dari penelitian yaitu pemberian nano enkapsulasi ekstrak buah senduduk mampu memperbaiki profil lipid ayam broiler yaitu terlihat pada penurunan kadar kolesterol daging ayam.

Kata kunci: Antosianin, Buah senduduk, Nano enkapsulasi, Profil lipid ayam broiler

THE INFLUENCE OF NANO-ENCAPSULATION OF (*Melastoma malabathricum* L.) FRUIT EXTRACT ON GROWTH PERFORMANCE LIPID AND PROFILE OF BROILER CHICKEN

ABSTRACT

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The aim of this research was to examine the impact of nano encapsulation of *Melastoma malabathricum* L. fruit extract as feed additive that was given through drinking water towards lipid profile of broiler chicken. Experimentation plan that was used in this research is completely randomized design using 6 increment treatment of *Melastoma malabathricum* L. fruit extract to the drinking water of the chicken each with 5 repetitions. Detail of rations treatment are as follow: T0 drinking water treatment without feed additive (negative control), T1 drinking water treatment + 0.2 mg/kg body weight simvastatin (positive control), T2 drinking water treatment + 1.5% *Melastoma malabathricum* L. fruit extract, T3 drinking water treatment + 3.0% *Melastoma malabathricum* L. fruit extract, T4 drinking water treatment + 1.5% nano encapsulation of *Melastoma malabathricum* L. fruit extract, T5 drinking water treatment + 3.0% nano encapsulation of *Melastoma malabathricum* L. fruit extract. Parameter that is observed is the blood lipid profile, meat cholesterol, abdominal fat, and visceral fat of broilers. The result of this research showed that the addition of nano encapsulation of *Melastoma malabathricum* L. fruit extract gives significant impact ($P < 0.05$) toward reduction of broiler's meat cholesterol. Adding the nano encapsulation of *Melastoma malabathricum* L. fruit extract do not give significant impact toward growth performance, blood lipid profile, crude fat of the thigh and chest of the broilers, abdominal fat, and visceral fat. The conclusion of this research is that giving nano encapsulation of *Melastoma malabathricum* L. fruit extract is able to improve lipid profile of broiler, which is in the amount of meat's cholesterol.

Key words: *Melastoma malabathricum* L. fruit extract, Nano-encapsulation, Lipid profile of broiler chicken