

# PENGARUH NANOKAPSUL KUNYIT TERHADAP KECERNAAN NUTRIEN RANSUM PADA ITIK LOKAL JANTAN

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## INTISARI\*)

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian nanokapsul kunyit formula jus dan filtrat dalam ransum terhadap pencernaan nutrisi pada itik lokal jantan. Penelitian ini dilaksanakan pada tanggal 14 Mei – 15 Juli 2018 di kandang percobaan Unit Pelaksanaan Teknis (UPT) dan di Laboratorium Kimia, Universitas Mercu Buana Yogyakarta. Ransum yang digunakan yaitu P1 (ransum basal tanpa penambahan nanokapsul kunyit/kontrol), P2 (ransum basal dengan penambahan filtrat nanokapsul kunyit 1% dari ransum), dan P3 (ransum basal dengan penambahan jus nanokapsul kunyit 1% dari ransum). Penelitian menggunakan rancangan acak lengkap (RAL) pola searah, dengan 3 perlakuan dan 5 ulangan. Setiap ulangan terdiri dari 1 ekor itik lokal jantan. Data yang didapat dari hasil penelitian selanjutnya dianalisis dengan analisis variansi. Apabila terdapat pengaruh nyata antar perlakuan ( $P < 0,05$ ), dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Variabel yang diamati yaitu pencernaan nutrisi yang meliputi: bahan kering, bahan organik, protein kasar, lemak kasar, serat kasar dan bahan ekstrak tanpa nitrogen (BETN). Pencernaan nutrisi pada itik yang diberi formula jus lebih tinggi dibandingkan filtrat dan kontrol. Pencernaan nutrisi ransum yang ditambah jus nanokapsul kunyit 1% yang meliputi pencernaan: bahan kering, bahan organik, protein kasar, lemak kasar, serat kasar dan BETN yaitu berturut-turut 93,84%, 94,83%, 94,48%, 98,23%, 96,46%, dan 93,25%. Dapat disimpulkan bahwa pencernaan nutrisi itik lokal jantan dengan penambahan jus nanokapsul kunyit sebanyak 1% dalam ransum lebih baik dari formula filtrat dan kontrol.

Kata kunci: Itik Lokal Jantan, Jus Nanokapsul Kunyit, Filtrat Nanokapsul Kunyit, Ransum, Pencernaan Nutrisi.

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# THE EFFECT OF TURMERIC NANOCAPSULE ON THE RATION NUTRIENT DIGESTIBILITY OF MALE LOCAL DUCK

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## ABSTRACT \*)

This study aimed to determine the effect of juice and filtrate formula turmeric nanocapsule in ration on nutrient digestibility of male local duck. This research was conducted on May 14 - July 15 2018 in the experimental pen of the Teaching Farm and at the Chemical Laboratory, University of Mercu Buana Yogyakarta. The ration used was P1 (ration without addition of turmeric nanocapsule/control), P2 (ration with addition of 1% turmeric nanocapsule filtrate from ration), and P3 (ration with addition of 1% turmeric nanocapsule juice from ration). The study used a completely randomized design (CRD) one way anova, with 3 treatments and 5 replications. Each replication consist of 1 male local duck. Data obtained from the research were analyzed by analysis of variance. If there were a significant different among the treatment ( $P < 0.05$ ), continued by *Duncan's New Multiple Range Test* (DMRT). The variable observed were nutrient digestibility which included: dry matter, organic matter, crude protein, crude fat, crude fiber and nitrogen free extract (NFE). Nutrient digestibility in duck fed juice formula was higher than filtrate and control. Nutrient digestibility with addition of 1% juice turmeric nanocapsule in ration included: dry matter, organic matter, crude protein, crude fat, crude fiber and nitrogen free extract (NFE) respectively was 93,84%, 94,83%, 94,48 %, 98,23%, 96,46%, and 93,25%. It could be concluded that the nutrient digestibility of male local duck with the addition of 1% of turmeric nanocapsule juice in the ration was better than the filtrate formula and control.

Keywords: Male Local Duck, Juice Turmeric Nanocapsule, Filtrate Turmeric Nanocapsule, Ration, Nutrient Digestibility.

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