

CHARACTERISTIC AND CURCUMIN DIGESTIBILITY OF FILTRATE AND
JUICE TURMERIC NANOCAPSULE ON MALE
LOCAL DUCK

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Abstract *)

This research has been conducted to determine the characterization and digestibility of Nanocapsules or Nanoparticles (NP) from turmeric juice and filtrate, on April 4 to June 24, 2018, in the teaching farm and Chemistry laboratory of Mercu Buana Yogyakarta University (UMBY). SEM measurements were carried out at the scanning electron microscopy (SEM) laboratory - LIPI Gunung Kidul and particle size test at BIT-BPPT Serpong. Used a Completely Randomized Design (CRD) with 3 repetitions. The first variable was the characterization of liquid solution of nano Juice particles and Filtrat nano particles, and the second variable was the digestibility of curcumin (invivo) in local male ducks. Data were analyzed using Analysis of Variance (ANOVA), the significant differences tested by the Duncan New Multiple Range Test (DMRT). Variables observed were morphology, particle size, and digestibility of curcumin. The results showed that the nanocapsules characterization of the filtrate and turmeric juice had morphology in the form of amorphous crystals, the particle size of NP juice was 453nm and filtrate 542 nm. The digestibility of curcumin NP turmeric juice 98% and NP filtrate 86% can be indicated that the characterization and digestibility of NP juice is better than NP filtrate.

Keywords: Characterization, Nanocapsule, digestibility, male local ducks.

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