

MORFOMETRIK USUS HALUS AYAM BROILER YANG DIBERI PROBIOTIK BERBASIS SUSU SAPI DAN SUSU KEDELAI FERMENTASI

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ABSTRAK

Usus halus khususnya ileum merupakan organ utama tempat berlangsungnya pencernaan dan absorpsi produk pencernaan. Pemberian probiotik mampu meningkatkan tinggi dan lebar villi akibat meningginya asam lemak yang diinduksi oleh probiotik. Asam lemak rantai pendek diproduksi oleh proses fermentasi strain bakteri probiotik yang berperan dalam stimulasi perbanyakan sel epitel usus sehingga memperluas area penyerapan nutrient. Bahan dan metode: Broiler dibagi secara acak menjadi 20 unit, masing-masing unit terdiri dari 5 ekor, sehingga totalnya adalah 100 ayam broiler. Terdapat empat kelompok perlakuan P0, P1, P2, dan P3. Penelitian ini menggunakan metode eksperimental dengan Rancangan Acak Lengkap (RAL). Ayam pedaging pada kelompok pertama (P0) ransum basal, (P1) ransum basal + probiotik berbasis 100% susu sapi fermentasi, (P2) ransum basal + probiotik berbasis susu sapi fermentasi + susu kedelai fermentasi dengan rasio 50% : 50%, (P3) ransum basal + probiotik berbasis susu sapi fermentasi + susu kedelai difermentasi dengan rasio 75% : 25%. Hasil penelitian menunjukkan bahwa pemberian probiotik tidak berpengaruh nyata terhadap penambahan lebar, tinggi dan jumlah villi. Kesimpulan: probiotik dapat memperbaiki lebar, tinggi dan jumlah villi pada ileum.

Kata kunci: *Probiotik, susu fermentasi, broiler, usus halus, villi-villi*

**MORFOMETRIC OF SMALL INTESTINE IN BROILER CHICKEN
SUPPLEMENTED BY FERMENTED COW'S AND SOY MILK BASED
PROBIOTICS**

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ABSTRACT

Small intestine especially ileum is the main organ where digestion and the absorption of digestive products takes place. Additions of probiotics can increase the height and width of villi due to increased fatty acid induced by probiotics. Short chain fatty acids are produced by the fermentation of probiotic bacterial strains that play a role in stimulating the propagation of intestinal epithelial cells to expand the nutrient absorption area. Materials and methods: Broiler divided randomly into 20 units, each unit consists of 5 chickens, and the total is 100 broiler chickens. There are four treatment groups P0, P1, P2, and P3. This research used experimental method with Completely Randomized Design (CRD). First group broiler (P0) basal feed, (P1) basal feed with 100% fermented cow milk, (P2) basal feed + fermented cow milk + fermented soy milk with ratio 50% : 50%, (P3) basal feed + fermented cow milk + fermented soy milk with a 75% : 25% ratio. The results showed that probiotic supplementation gave non significant effect for the height, width and the number of the villis in ileum. The conclusion is: probiotics could improve the height, width and the number of the villis in ileum.

Key words: *Probiotic, fermented milk, broiler, small intestine, villis*