

ABSTRAK

HISTOMORFOMETRI INTESTINUM TENUE AYAM BROILER YANG DIBERI PREBIOTIK MULTIVIT[®]

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Industri perunggasan semakin meningkat seiring meningkatnya kebutuhan masyarakat terhadap bahan makanan. Penggunaan *feed additives* dalam industri peternakan ayam broiler seperti prebiotik, probiotik, dan AGP menjadi salah satu upaya untuk meningkatkan produksi dan kesehatan ternak unggas. Penelitian ini bertujuan untuk mengetahui histomorfometri intestinum tenue ayam broiler yang diberi perlakuan MultiVit[®] selama 24 hari dibandingkan dengan EM4[®] dan AGP Stamix[®]-20 yang sudah memiliki reputasi meningkatkan pertumbuhan intestinum tenue dan produktifitas ayam broiler.

Ayam broiler dalam penelitian ini dibagi menjadi kelompok kontrol dan tiga kelompok perlakuan. Kelompok perlakuan MultiVit[®] diberikan sejak umur 14 hari, sedangkan kelompok EM4[®] dan AGP diberikan sejak umur 0 hari. Setelah 38 hari, ayam dipanen kemudian dinekropsi, bagian intestinum tenue (duodenum, jejunum, ileum) diambil dan disimpan untuk pembuatan preparat histologi. Selanjutnya dilakukan pengukuran vili usus dengan menggunakan program ImageRaster 3.0. Analisis dilakukan dengan *Analysis of Variance* (ANOVA).

Hasil analisis menunjukkan pemberian MultiVit[®] selama 24 hari, tidak berbeda signifikan ($P > 0.05$) dengan kelompok kontrol, EM4[®], dan AGP. Namun demikian, pemberian MultiVit[®] sejak hari ke-14 mampu meningkatkan panjang vili, lebar vili atas dan tebal mukosa usus.

Kata kunci : MultiVit[®], Prebiotik, EM4[®], AGP Stamix[®]-20, intestinum tenue, panjang vili.

ABSTRACT

HISTOMORPHOMETRY OF INTESTINUM TENUE CHICKEN BROILER TREATED WITH PREBIOTICS MULTIVIT[®]

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The poultry industry in Indonesia is growing along with the increased demand for chicken products consumption. The use of feed additives for broiler industry, such as prebiotics, probiotics, and AGP, is aimed to increase the production and health of the poultry. This study aimed to determine the histomorphometric of broiler intestine tenue which treated with MultiVit[®] starting day 14, EM4[®] and AGP Stamix[®]-20 which has the best potential for intestinal tenue growth and broiler productivity.

The broiler chickens were divided into a control group and three treatment groups. The MultiVit[®] treatment group was given from day 14, while the EM4[®] groups were and AGP Stamix[®]-20 given from day 0. After 38 days, the chickens were sacrificed and the intestinal tenue (duodenum, jejunum, ileum) was collected for histology preparations. The intestinal villi were measured using the ImageRaster 3.0 program. The analysis was performed using the *Analysis of Variance* (ANOVA).

The results of the analysis showed that giving MultiVit[®] since day 14, was not significantly different ($P > 0.05$) with the control group, EM4[®], and AGP[®]. However, giving MultiVit[®] since day 14 was able to increase villi length, width of the upper villi and thickness of the intestinal mucosa.

Keywords: MultiVit[®], Prebiotic, EM4[®], AGP Stamix[®]-20, intestinal tenue, villi's length