



## *Intestinal Morphology Broiler Chickens Supplemented with Propolis*

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### **Abstract**

The small intestine is an important organ responsible for digestion and absorption of nutrients from food<sup>1</sup>. Studies have demonstrated that certain bee products, such as propolis positively affect the small intestine villi making them longer and thicker, which has beneficial effect on the absorption of nutrients from food and consequently performance parameters of fattening chickens<sup>2-3</sup>. The aim of this study was to determine the influence of dietary supplementation of propolis on the intestinal morphology in broiler chickens. This experimental study was conducted on 120 Ross 308 broiler chickens of equally distributed sex, which were randomly divided into three groups: control group (C) and two experimental groups (P1 and P2). Throughout the whole study (for 42 days) the control group of chickens was fed feed mixture while feed mixture that was fed to the experimental groups of chickens contained propolis in amount of 0,5 g/kg (P1 group) and 1,0 g/kg of feed mixture (P2 group). The duodenal villi of chickens from the experimental groups were significantly higher in comparison to the duodenal villi of chickens from the control group ( $p=0.034$ ) while there were no statistically significant differences in width of villi's base and peak between the groups ( $p=0.114$  and  $p=0.145$ , respectively). The duodenal villi crypts of chickens from the experimental groups were significantly wider ( $p=0.001$ ) and deeper ( $p<0.001$ ) in comparison to those parameters in chickens from the control group on the 42<sup>nd</sup> day of fattening. Addition of propolis to feed mixtures has significant protective effect on the gut tissue of chickens.

### **References:**

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