

## عنوان مقاله:

Vitamin E Improves Morphology and Absorptive Surface of Small Intestine in Broiler Chickens Reared at High Altitude

## محل انتشار:

مجله علوم طیور، دوره 4، شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 8

## نویسندگان:

Hassanpour H - *Department of Basic Sciences, Physiology Division, Faculty of Veterinary Medicine, Shahrekord University, Shahrekord, Iran*

Bahadoran S - *Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahrekord University, Shahrekord, Iran*

Borjian N - *Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahrekord University, Shahrekord, Iran*

## خلاصه مقاله:

Under high altitude conditions, the effects of vitamin E ( $\alpha$ -tocopherol) on growth performance, intestinal morphology (villus size and type), and absorptive surface area of broiler chickens were evaluated. Chickens were fed diets supplemented with 0, 100, 200 or 400 IU/kg vitamin E for 42 days. On days 14, 28 and 42, birds were sacrificed and three segments of small intestine were dissected. The feed conversion ratio at day 42 significantly decreased when supplementing the diet with 400 IU/kg vitamin E ( $P < 0.05$ ). The duodenal and jejunal villus height, width, and lamina propria at both 28 and 42 days significantly increased when supplementing the diet with all concentrations of vitamin E, but the ileal villus height was only higher with 400 IU/kg vitamin E compared to the control diet at 42 days ( $P < 0.05$ ). The proportion of jejunal leaf + tongue-like villi increased while convoluted + ridge-like villi decreased with 200 and 400 IU/kg vitamin E supplementation at 42 days compared to the control ( $P < 0.05$ ). The sum of measured villus surface area in three intestinal parts increased due to vitamin E supplementation at days 28 and 42 compared to control ( $P < 0.05$ ). It is concluded that vitamin E (especially 400 IU/kg) had beneficial effects on feed efficiency, intestinal morphology and absorptive area.

## کلمات کلیدی:

Vitamin E, Tocopherol, Intestinal absorption, Intestinal morphology

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/939022>

