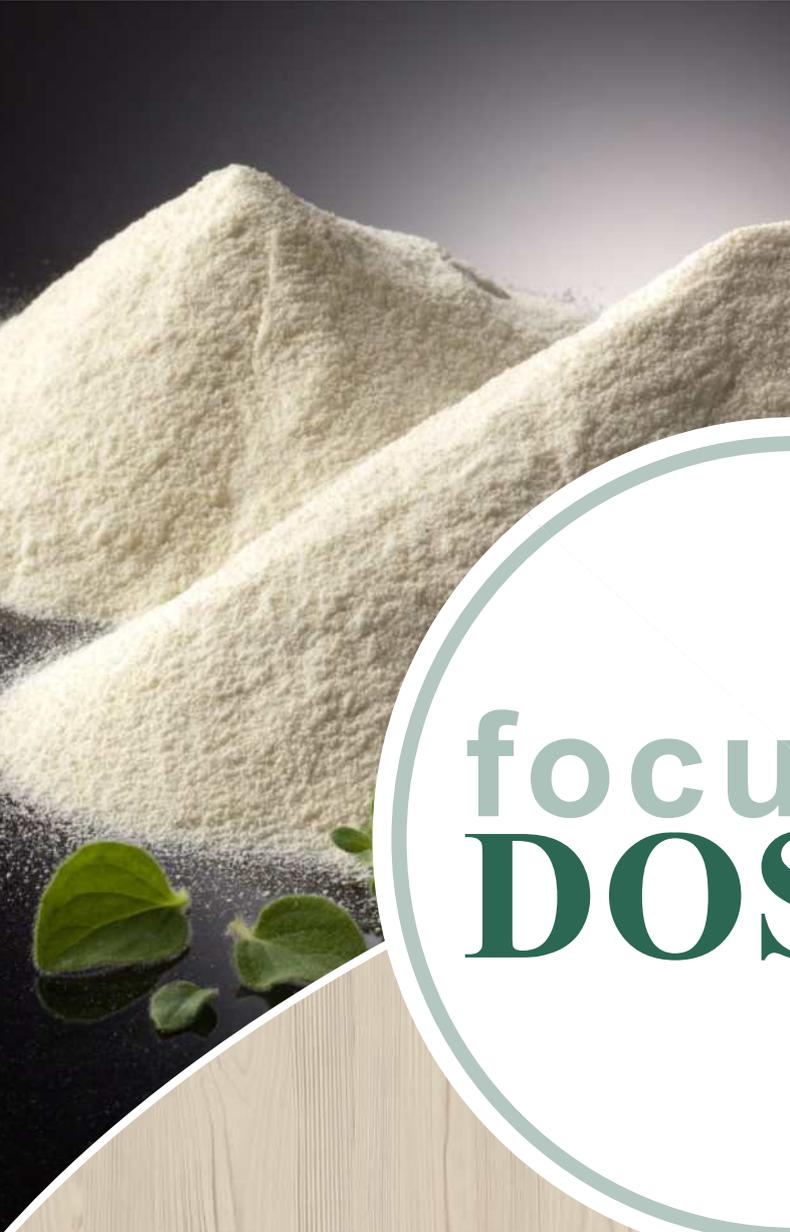




THE OREGANO PEOPLE

DOSTOFARM[®]



focus on
DOSTO

Intestinal Health in Poultry

Effects of natural DOSTO[®] Oregano oil on Performance, Immune Defense and Meat Quality

DOSTO® Oregano Oil for Poultry

The essential oil of DOSTO® Oregano has proven antibacterial, immune stimulant, antioxidant and intestinal microbiota modulating properties. Thanks to this high versatility our products have a wide range of applications.

Several pathogens (*E. coli*, clostridia, coccidia, etc.) can affect our birds, causing growth impairs and economical losses.

By adding DOSTO® Oregano oil to the feed or water, we have healthier birds with a strong immune system. Outbreaks can be successfully prevented and the use of antibiotics reduced.

Furthermore, our latest research in broiler shows that DOSTO® Oregano oil improves the intestinal morphology, immune response to stress and meat quality.



Improved Intestinal Morphology

An experiment conducted in the experimental barn and diagnostic center of the Faculty of Veterinary Medicine of the Mahanakorn University (Thailand) evaluated the effect of DOSTO® Liquid (water-soluble product with 10% DOSTO® Oregano oil) on the performance, immune response, intestinal morphology and meat quality.

For the experiment, 384 one-day-old male broiler chicks, breed Ross 308, were selected and divided into two experimental groups and a control. The trial took place during 35 days.

As shown in the figure 1, the **ratio of villi to crypts** in the groups supplemented with was higher than in the control group.

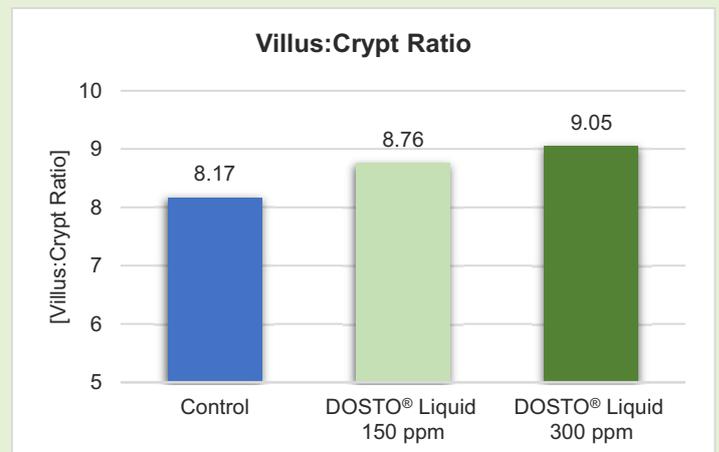
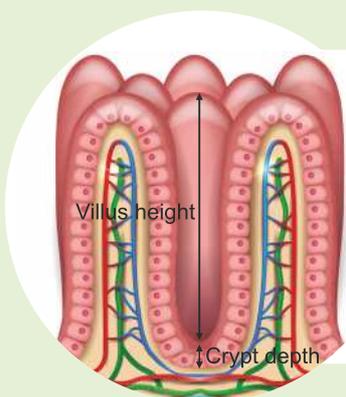


Fig. 1: Effect of DOSTO® Oregano oil on on intestinal morphology on day 35.



The crypt-villus is the main functional unit of absorption in the small intestine. An increase in the ratio of villus height to crypt depth may have a positive impact in the digestion and absorption of nutrients.

Improved Immune Response to Stress

In the same trial, the broilers that received DOSTO® Oregano showed a higher number of **duodenal immunoglobulins (IgA)** than those of the control group on day 21 and day 35.

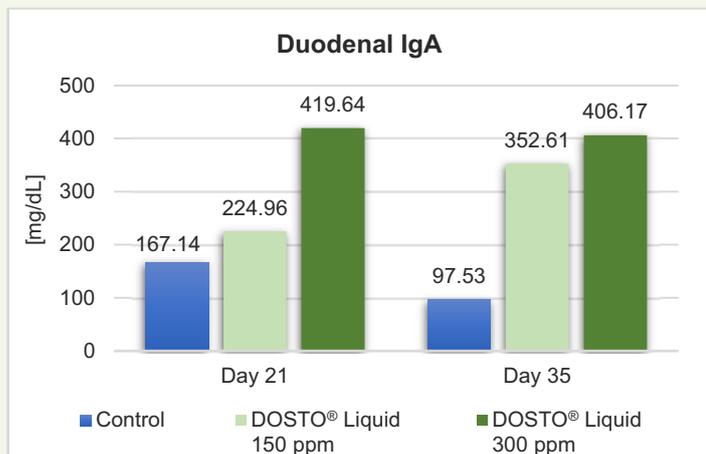


Fig. 2: Effect of DOSTO® Oregano oil on duodenal IgA.

Higher IgA values have a protective effect of the intestinal mucosa reducing the entry of pathogens.



Improved Meat Quality

The **drip loss** was reduced by half in the experimental groups (fig. 3). The **lipid peroxidation** was also significantly lower than that of the control group ($p < 0.01$) on day 35 (fig. 4).

TBARs are an indicator of the oxidation of unsaturated fatty acids. A decrease in the TBAR concentration means an increase in the quality of the meat, since the fats do not go rancid as quickly. This can help to extend the shelf life of the poultry meat.

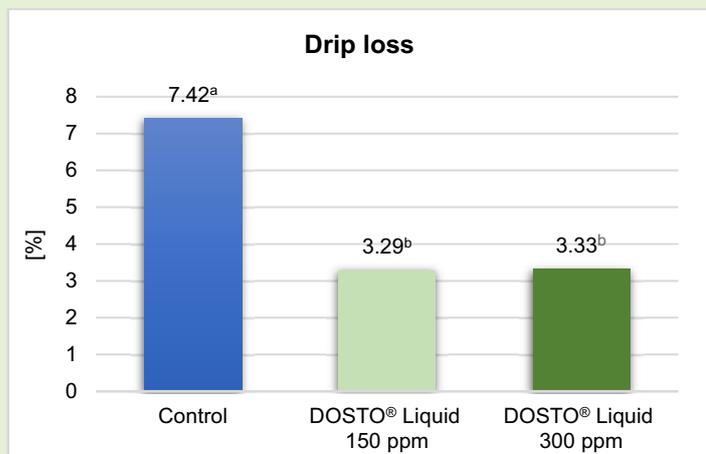


Fig. 3: Effect of DOSTO® Oregano oil on drip loss on day 35.

The water holding capacity is one of the most important quality parameters of meat, especially with regard to processing suitability.

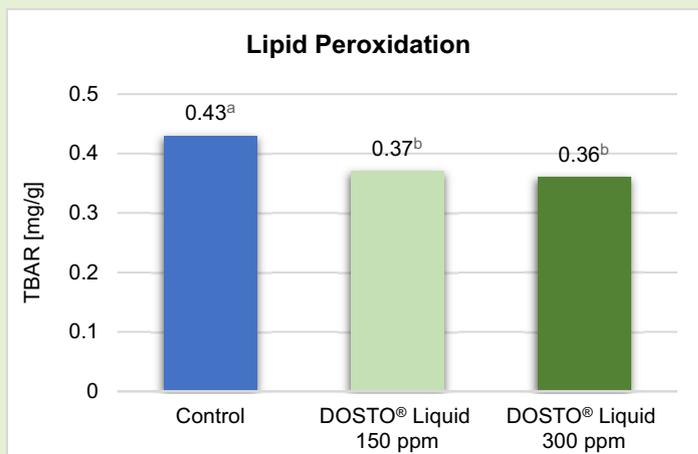


Fig. 4: Effect of DOSTO® Oregano oil on lipid peroxidation on day 35.





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Healthier birds, better performance

DOSTO® Oregano's immune stimulating, antioxidant and gut modulating properties have a direct effect on the broilers performance.

In the present study the **weight gain** of the experimental group supplemented with 300 ppm DOSTO® Liquid was higher than the control group (1740.84 g vs. 1678.16 g) and showed the best **feed conversion** (1.57 vs. 1.64) after 35 days.

Do you have questions about DOSTO® Oregano to support poultry intestinal health?
Contact us! mail@dostofarm.de

References are available on request.

