

THE EFFECT OF OREGO-STIM ON BROILER MEAT QUALITY

SUMMARY

- ✓ Poultry breast and thigh meat from broilers fed Orego-Stim had significantly reduced lipid oxidation.
- ✓ Reduced lipid oxidation can increase shelf-life and meat quality of breast and thigh meat by improved antioxidant status of meat.

BACKGROUND

- ✓ Lipid oxidation in meat decreases the shelf life and quality (Avila-Ramos *et al.*, 2013).
- ✓ Malonaldehyde (MDA) is a by-product of fat oxidation, which is a major reason for meat deterioration and rancidity (Angelo *et al.*, 1996).
- ✓ Oregano essential oil has antioxidant properties which when supplemented in broiler feed has been shown to improve oxidative stability in stored breast and thigh meat (Botsoglou *et al.*, 2003).
- ✓ Orego-Stim is a high quality eubiotic containing 100% natural oregano essential oil.

TRIAL DESIGN

An independent trial was conducted by Aristotle University of Thessaloniki, Greece, where 480 male Ross 308 chicks from day old were reared to 42 days old. Broilers were randomly allocated in equal numbers to either the Control, or Orego-Stim (300g/t) treatments with 8 replicates per treatment (30 broilers per pen). Feed intake and individual body weights of all broilers were measured weekly. On day 42, broilers were processed and the meat was collected for refrigerated storage (6 days at 4°C). Samples of thigh and breast meat were collected every 3 days. These samples were then cooked and antioxidant status was analysed.

RESULTS

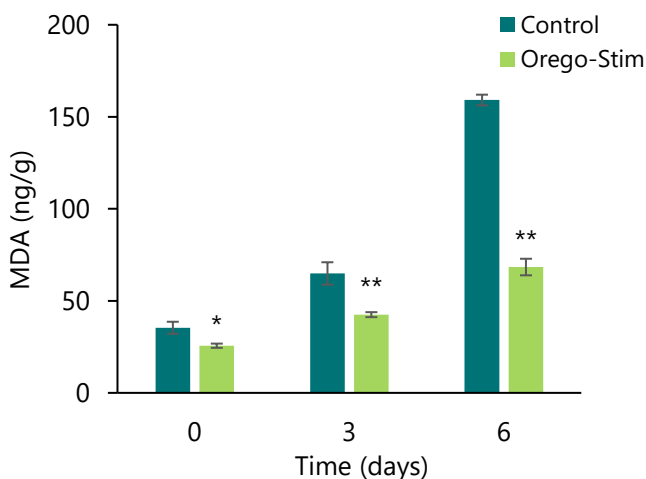


Figure 1. Effect of Orego-Stim on breast meat malonaldehyde (MDA) content. *Significant difference $p < 0.05$. **Significant difference $p < 0.001$.

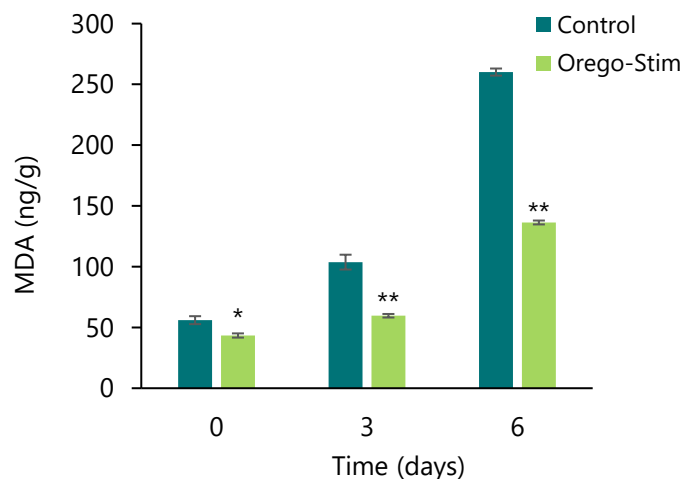


Figure 2. Effect of Orego-Stim on thigh meat malonaldehyde (MDA) content. *Significant difference $p < 0.05$. **Significant difference $p < 0.001$.

- ✓ Lipid oxidation of breast and thigh meat was significantly reduced in meat from broilers fed Orego-Stim compared to broilers fed the control diet (Figure 1 and 2).
- ✓ Inclusion of Orego-Stim in broiler diets could be a natural tool for improved meat quality and shelf life of breast and thigh meat by improved antioxidant status of the meat.

