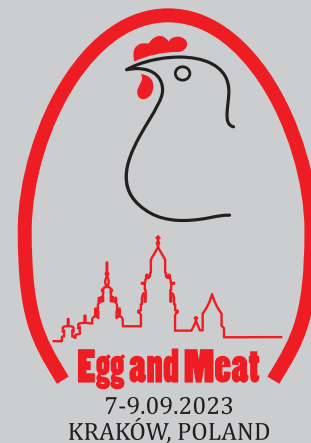


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Abstract Book



OP-20 Dietary inclusion of *Chlorella vulgaris* and heat-stress in broiler chickens: effects on growth performance and product quality of broiler chickens.

Marija Bošković Cabrol¹, Almudena Huerta Palacios¹, Francesco Bordignon¹, Marco Birolo¹, Gerolamo Xiccato¹, Angela Trocino²

¹ University of Padua/Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Legnaro, Italy

² University of Padua/Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE)/Department of Comparative Biomedicine and Food Science (BCA), Legnaro, Italy

The present study aimed to evaluate how the use of *Chlorella vulgaris* (3% or 6% replacing the same quantities of soybean meal from the control diet) affected growth performance and carcass traits of 576 broiler chickens (half males, half females) kept under thermoneutral or heat-stressed conditions until slaughtering (41 d). The 6% inclusion level of *C. vulgaris* resulted in lower final body weight (BW), body weight gain (BWG), and feed intake (FI) in comparison with the other dietary treatments ($P < 0.01$) as well as higher breast and *Pectoralis major* muscle proportions compared to the control group ($P < 0.05$). Regarding environmental temperature, FI and breast proportion were higher in birds reared under thermoneutral conditions ($P < 0.01$) than in those kept in a heat-stress environment, while the opposite was observed for hind legs. Regarding the effect of sex, BW, BWG, and FI were significantly ($P < 0.01$) lower, and feed conversion ratio was higher in females than in males. Males had also heavier carcasses ($P < 0.01$) and higher hind leg proportion ($P < 0.01$) than females, whereas females showed higher ($P < 0.01$) dressing percentage, breast, and *P. major* muscle yields than males. Regarding meat quality, the dietary inclusion of microalgae resulted in a color change ($P < 0.05$) and, at the highest inclusion level, in increased n-3 fatty acids ($P < 0.05$) and decreased n6/n3 ratio ($P < 0.01$). The heat stress led to higher meat pH and cooking loss ($P < 0.01$) and lower thawing loss ($P < 0.05$) compared to the control group.