

Effects of *Toona sinensis* powder supplemented to diets on growth and immunity and carcass quality of breast meat in geese ⁽¹⁾

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Abstract

The aim of the current study was to investigate the effects of *Toona sinensis* powder supplemented to diets on growth and immunity and carcass quality of breast meat in geese. A total of twenty-four geese were randomly divided into the control and the treatment groups comprising 2 males and 2 females at 8 weeks of age per pen (3 replicates). Body weight and blood samples were collected at 2 and 4 weeks of age. Then, the carcass characteristics and breast meat quality of hybrid geese were collected at sixteen weeks of age. The results showed that there was no significant differences between the control and treatment groups in terms of growth performances, the values of blood biochemical parameters and pH, L, a, and b of breast meat quality. Notwithstanding that there were significantly higher concentration of IgG in serum, the content of polyunsaturated fatty acid in breast meat and the better flavor, tenderness and acceptability of sensory evaluation in the treatment supplemented with *Toona sinensis* powder ($P < 0.05$). In summary, the *Toona sinensis* powder supplemented to diets did not ameliorate the growth performances in geese. However, for the production of specialized goose industry, *Toona sinensis* powder could improve immunity and enhance the flavor of geese.

Key words: *Toona sinensis*, Growth, IgG, Fatty acid.

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