

Evaluation of the feeding value of wet black tea leave residues in White Roman meat-type geese⁽¹⁾

Sheng-Der Wang⁽²⁾⁽⁴⁾ Ching-Hua Chien⁽³⁾ Shih-Chieh Liao⁽²⁾ and Shih-Yi Shen⁽²⁾

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Abstract

Tea leave waste is the by-product from tea production or processing. The aim of this study was to evaluate the feeding value of wet black tea leave residues (WBTR) in White Roman meat-type geese. A total of ninety White Roman geese at 4 weeks of age were randomly allotted by gender to 5 groups according to feeding phase, feeding ration and WBTR supplementation. Each group was replicated in 3 pens, containing 3 ganders and 3 geese. Five groups with different rations were represented by A5A9, A5R9, A5R9T9, R5A9 and R5T5A9, respectively. The A5A9 control group represented the birds fed *ad libitum* from 5 to 8 and from 9 to 12 weeks of age. R5 or R9 represented the birds fed 80% feed provision, which was the feed intake calculated from the average of the control groups prior to 3 to 4 days between 5 to 8 or 9 to 12 weeks of age. T5 or T9 represented the birds with supplemental WBTR *ad libitum* from 5 to 8 or 9 to 12 weeks of age. Finally, all geese in each group were fed *ad libitum* without WBTR supplementation at 13 weeks of age. The results showed that lower body weight gain and feed intake, and poor feed conversion ratio (FCR) in the R5A9, R5A9 and R5T5A9, and the R5T5A9 group at 5 to 8 weeks of age, respectively ($P < 0.05$). Moreover, lower feed intake and poor FCR were found in the A5R9T9 group when compared with the A5A9 group at 9 to 12 weeks of age ($P < 0.05$). At the age between 5 and 12 weeks, feed intake of the A5R9T9 and R5T5A9 group were lower than that of the A5A9 group ($P < 0.05$). The levels of serum triglyceride at 8 weeks of age and serum total protein at 12 weeks of age of the R5T5A9 group were lower than those of the A5A9 group ($P < 0.05$). Serum total protein, total cholesterol and low-density lipoprotein cholesterol levels of the A5R9T9 group at 12 weeks of age were lower than those of the A5A9 geese group ($P < 0.05$). We concluded that body weight gain and FCR at 5 to 12 weeks of age are not affected by the 20% feed restriction with supplemental WBTR at 5 to 8 or 9 to 12 weeks of age in White Roman meat-type geese. Moreover, the feed cost can be decreased.

Key words: Wet black tea leave residues, White Roman meat-type goose, Feeding value.

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(2) Changhua Animal Propagation Station, COA-LRI, Changhua 52149, Taiwan, R. O. C.

(3) Yuchih Branch, Tea Research and Extension Station, COA, Nantou 555009, Taiwan, R. O. C.

(4) Corresponding author, E-mail: wsd@mail.tlri.gov.tw.