

# Effects of supplemental taiwanese propolis extract on growth, carcass characteristics and immune response in Taiwan native chicken <sup>(1)</sup>

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Received: Sep. 22, 2015; Accepted: Mar. 15, 2016

## Abstract

The purpose of this study was to investigate the effects of Taiwan propolis extract on the growth performances, carcass characteristics and immune response for the Native chickens. A total of three hundred and twelve day-old Native chickens were randomly allocated with equal sex in to four groups each group has three replicates as the treatments are (1) basal diet (control); (2) addition of 100 ppm Taiwanese propolis extract (TPE); (3) addition of 200 ppm TPE; (4) addition of 125 ppm oxytetracycline as drug treatment. Feed and water are supplied ad libitum. Results showed that feed intake did not affect among these treatments during the experimental period. The chicken fed the TPE had significantly higher weight gain, survival rate and feed conversion ratio when compared with the control group ( $P < 0.05$ ). The chicken fed the 200 ppm or 100 ppm TPE had significantly higher dressing percentage or lower Abdominal fat percentage, respectively ( $P < 0.05$ ). The birds fed the 200 ppm TPE had increased villous height and perimeter at 8 weeks of age ( $P < 0.05$ ). Meanwhile, drug and TPE 200 ppm group had significantly higher villous height and crypt ratio at 16 weeks of age ( $P < 0.05$ ). The PHA score was significantly higher by feeding TPE. However, ND antibody titer was increased for those chicken supplementation of TPE and drug groups than that of control group. In conclusion, the growth, dressing percentage, villi growth and immune response of the Native chickens could be improved by the supplementation of 100 ppm or 200 ppm TPE.

Key Words: Growth performances, Immune response, Native chicken, Taiwan propolis extract.

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