

Effect of local medicinal herbs as feed additives on production performance and faecal parameters in laying hens

ABSTRACT

Medicinal herbs are gaining importance in both human and animal nutrition due to their bioactive components that possess a wide range of beneficial effects on body health enhancement. To concord with the banning of antibiotic growth promoters in animal nutrition, research was carried out to utilize phytogetic feed additives in poultry nutrition as the alternative to improve their overall performance. Therefore, the objective of this study was to evaluate the effects of dietary supplementation of the three selected herbs at the level of 1% on production performance and faecal parameters in laying hens. In this study, a total of 96 Bovans Brown layers of 32 wk old were subjected to four dietary treatments in the form of CRD, namely (T1) control, (T2) basal diet + 1% of turmeric rhizome powder, (T3) basal diet + 1% of Vietnamese coriander leaf powder, and (T4) basal diet + 1% of Dayak onion powder. The layers were given 7-d adaption period before the feeding trial started which lasted for 12 wk. The results showed that there was no significant difference ($P>0.05$) in the means of overall feed intake, egg mass, feed conversion efficiency as well as body weight gain among the treatment groups. The hen-day egg production and egg weight of birds in treatments T2 and T4 showed significant differences ($P<0.05$) compared to control group. Besides, the birds in the treatment groups supplemented with medicinal herbs (T2, T3 and T4) also showed significant reduction in faecal pH and faecal Entero bacteriaceae counts ($P<0.05$) compared to the control, while significantly improved ($p<0.05$) the faecal lactic acid bacteria counts as compared to those in the control group. Thus, the present study suggests that dietary supplementation of 1% of turmeric rhizome powder, Vietnamese coriander leaf powder and Dayak onion powder in layer diet can achieve better performance in terms of hen-day egg production and egg weight associated with favourable intestinal environment without any adverse effect.