قسم الدواجن

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بحث رقم (1)

طبيعة البحث: مشترك ومنشور (مستخلص من رسالة).

سابقة التقييم: لم يقيم

عنوان البحث:

Influence of dietary supplementation of marigold flower powder and extract *(Calendula officinalis L.)* on performance, nutrient digestibility, serum biochemistry, antioxidant parameters and immune responses of growing Japanese quail.

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ABSTRACT

This study aimed to investigate the effects of marigold flower powder (MFP) and marigold flower extract (MFEx) as feed additives on the performance, blood parameters, antioxidant capacity, immunologicaI parameters, microbial content, digestive enzymes and digestibility in growing Japanese quail. A total number of 350 birds randomly distributed into seven groups, with five replicates of 10 birds each, control diet (control group), the second, third and fourth groups were fed on a basal diet within MFP 0.6%, 0.9% and 1.2% respectively. Fifth, sixth and seventh groups received the basal diet plus MFEx 150, 200 and 250 ppm respectively. Quails fed on a diet supplemented with MFEx 200 ppm had significantly higher lipase levels ($p \leq 0.001$) compared to the control and MFP 0.6% without any significant difference with other experimental groups. Moreover, all digestibiIity coefficients (DC) of nutrients except for nitrogen- free extract were significantly ($p \leq 0.001$) affected by all dietary treatments. Quails fed on the diet supplemented with MFEx 200 ppm significantly ($p \leq 0.001$) presented the best body weight, body weight gain, feed conversion ratio and the lowest feed intake over all groups. Total lipid profile, kidney functions and liver functions were significantly affected by both MFP and MFEx diets. The group treated with MFEx 250 ppm had lowest *E. coli and Salmonella* popuIation and the highest *Lactobacilli* popuIation number. Antioxidant parameters and immune response (except for lymphocytes) were significantIy affected ($p \leq 0.001$) by different levels of MFP and MFEx. In conclusion, the addition

of MFEx and MFP at 200 ppm followed by 250 ppm and 1.2% MFP, respectiveIy, to the basal diet improved product productive performance, blood parameters, antioxidant capacity, immunologicaI parameters, microbial content and digestibility in growing Japanese quail.