

INFLUENCE OF RED GINGER EXTRACT (*ZINGIBER OFFICINALE VAR RUBRUM*) IN THE RATION ON THE ACTIVITY OF DIGESTIVE ENZYMES AND PERFORMANCE SENTUL CHICKENS

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Abstract

Red ginger extract is a common plant used as an alternative to synthetic feed additives in poultry production. Red ginger contains bioactive components in the form of oleoresin and gingerol which function to help optimize organ function. The study was aimed to determine the influence of red ginger extract on the activity of digestive enzymes and the performance of Sentul chickens. Sentul Chicken is a local chicken of Indonesia which have potential as dual-purpose chicken. One hundred DOC Sentul chickens were reared for twelve weeks, with a Completely Randomized Design (CRD), there were five treatments and four replications. Treatments with red ginger extract in ration was 0 , 0.1% red ginger extract (RGE)/kg ration, 0.2 % RGE/kg ration, 0.3% RGE/kg ration and 0.4% RGE/kg ration. The basal ration used contains 17% protein and metabolic energy of 2850 Kcal/kg. The observed variables were the activity of digestive enzymes (amylase, protease, and lipase), feed consumption, Final body weight, and feed efficiency. The results showed that the treatment significantly affected amylase and protease activity, but not significantly affected lipase. The treatment with 0.1 - 0.4% RGE/kg ration significantly decreased of feed consumption and feed efficiency and Final body weight increased. It can be concluded that treatment 0.3% RGE/kg produced good performance of Sentul chickens.

Key words: Red ginger extract, digestive enzyme activity, performance, sentul chicken