

## **Effect of Lipase and Protease Enzymes on Digestibility of Fat and Protein of Rice Bran Based Broiler Feeds**

**Colonne A<sup>1</sup>, Prasanna KGP<sup>1</sup>, Nayananjalie WAD<sup>1</sup> and Silva SSP<sup>2</sup>**

*<sup>1</sup>Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura.*

*<sup>2</sup>Animal Nutrition Division, Veterinary Research Institute, Peradeniya*

### **Abstract**

Even though, there is a high potential of rice bran as a feed ingredient in broiler feeds, low digestibility is setback the use of it. Thus, this study was carried out to investigate the effect of Protease and Lipase enzymes on digestibility of fat and protein of rice bran based broiler feeds. A total of 320, day-old-broiler chicks were selected and fed with experimental diets. Excreta and feed samples were analyzed and performances of bird were evaluated. The ether extraction method was used to analyze the amount of fat in feeds and excreta. Amount of protein analyzed by using Kjeldahl method. Data were analyzed using two way ANOVA procedure with Genstat software. Results revealed that, enzymes were not much effective in improving the performance in digesting fat and protein of broilers fed with rice bran based feed. Overall result of digestibility had a significant difference ( $P < 0.05$ ) with rice bran levels. Also digestibility of fat increased gradually with the level of rice bran. However, there was no significant difference ( $p > 0.05$ ) of digestibility in fat and protein with the enzymes. It can be concluded that, there is no effect on digestibility of crude fat and crude protein with use of the particular enzymes with rice bran based feeds in broiler. Digestibility of crude protein is higher in 20% rice bran based broiler feeds and digestibility of crude fat gradually increased with the levels of rice bran.

**Keywords:** broiler, broiler feed, lipase, protease, rice bran