

Judul: The Effects of Rice Hull Inclusion and Enzyme Supplementation on the Growth Performance, Digestive Traits, Dry Matter and Phosphorus Content of Intestinal Digesta and Feces of Broiler Chickens

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International Journal of Poultry Science: Vol. 18 (1): 21-27.

Published : December 15, 2018

ISSN : 1682-8356

CITATION : SCOPUS Q3

DOI : 10.3923/ijps.2019.21.27

Website : <https://scialert.net/jhome.php?issn=1682-8356>

Abstract

Background and Objective: The study was conducted to determine the effects of rice hull inclusion and enzyme supplementation on the growth performance, digestive traits, DM and phosphorus (P) content of intestinal digesta and feces of broiler chickens from 3-21 days of age. **Materials and Methods:** A total of 200 three-days-old male Lohmann chicks were allocated to 4 treatments (10 replications per treatment): corn-soybean-based diet (CON), 40 g kg⁻¹ rice hull inclusion in the diet (RH), RH+phytase 1750 FTU kg⁻¹ (RHP), or RHP+cellulase 500 unit kg⁻¹ (RHPC). **Results:** From 7-14 and 14-21 days of age, feeding the RH improved ADG but addition of phytase reduced ($p \leq 0.05$) ADG. From 3-21 days of age, birds within the RH groups had better ADG and G:F than those within the CON group; the addition of phytase and cellulase improved ($p \leq 0.05$) G:F more than the individual phytase. At 21 days of age, the feeding of RH tended ($p = 0.057$) to increase the weight of empty gizzards, increased ($p \leq 0.05$) the jejunum content and the P-disappearance of digesta and reduced ($p \leq 0.05$) the P-excretion. Supplementation of phytase and cellulase increased the P-disappearance and reduced the P-excretion more than the supplementation of phytase. **Conclusion:** This study demonstrated that the inclusion of 40 g kg⁻¹ rice hulls can improve the growth performance of young broilers. Supplementation of phytase and cellulase had a better effect than phytase in increasing ADG, G:F and P-disappearance in digesta and in reducing P-excretion.

Key words: Broiler chickens, growth performance, phosphorus, phytase, rice hulls