The Journal of Poultry Science

Performance and Carcass Quality of Broiler Chickens Fed a Corn-soybean Meal Diet Containing Graded Barley Levels without or with Enzyme

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Abstarc :

Three experiments were conducted to evaluate broiler chicken performance, ready-to-cook carcass value, and the size of cut-up parts of the left carcass section in response to feeding a corn-soybean meal diet containing graded levels of Litani (L2), Pamir 35 (P2), or Rihan 03 (R6) barley without or with 0.1% enzyme. In the first experiment, a diet containing 25% L2 or R6 without or with enzyme was fed during the finisher period. Enzyme supplementation of the barley containing diets improved ($P<0.01$) broiler weight gain and feed conversion values. Enzyme containing diets supplemented with 0, 15, 30, and 45% L2, P2, and R6 were fed from hatch to 42d of age in the second experiment. There was a decrease ($P<0.06$) in cumulative performance with a concomitant increase ($P<0.01$) in abdominal fat pad yield when the level of barley was increased to 45%. In the third experiment, diets containing 15, 20, 25, 30, and 35% R6 without or with enzyme were fed from hatch till market age. Enzyme addition improved feed conversion and increased abdominal fat pad yield whereas breast muscle and thigh yields were decreased when barley level exceeded 25% ($P<0.01$). In conclusion, enzyme supplementation to barley diets improved efficiency of feed utilization but increased abdominal fat yield with no significant effect on breast muscle, thigh, and drum yields. The current findings indicate that levels up to 25% of R6 barley could be incorporated in diets up to market age without affecting broiler production parameters.

Key Word :
barley, broiler, carcass quality, enzyme, performance

Volume 47, Number 1, - 2010 , ISSN 1349-0486 (online), ISSN 1346-7395 (print)