Effect of Dietary Exogenous Phytase on Laying Performance of Older Hen

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ABSTRACT

The present study was undertaken to investigate and quantify the effects of dietary exogenous phytase supplementation on laying performance of hens at older age. Four hundred and thirty two laying hens (Isa-brown) received iso-caloric and iso-nitrogenous diet supplemented with 0, 0.05, 0.10 and 0.15% phytase and reared in individual cage. The hen was fed 120g feed/head/day from 75 to 93 weeks of age. Phytase addition in the diet resulted 10.50, 13.33 and 15.46% higher ($p<0.05$) egg production, 19.08, 23.40 and 27.54% higher ($p<0.05$) egg mass production in the 0.05, 0.10 and 0.15% phytase group respectively than the control group. The feed conversion ratio (FCR) was found to be 2.73, 2.64 and 2.55 in the 0.05, 0.10 and 0.15% phytase supplemented group in place of FCR to the control group. The additional cost has incurred at phytase was Tk. 0.95, 1.90 and 2.86 offering net profit on egg sale per laying hen Tk. 77.00, 81.00 and 95.00 in the 0.05, 0.10 and 0.15% phytase supplemented group respectively. It was concluded that reduced laying performance of laying hen at older age might be related to insufficient availability of phosphorus. The laying performance in hens at older age could be maintained by adding phytase in diet. Thus, it may be possible to extend the productive life of hen economically through supplying dietary exogenous phytase.

Key words: Exogenous phytase, laying performance, older hen

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