Dietary effect of *Moringa oleifera* on native laying hens' egg quality, cholesterol and fatty acid profile

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Functional foods included a wide variety of foods to improve overall health and wellbeing, reduce the risk of specific diseases, or minimize the effects of other health concerns. Therefore, this experiment aimed to evaluate feeding effects of addition *Moringa oleifera* leaf meal in the diet of native laying chickens on yolk cholesterol and fatty acid profile. One hundred sixty (160) native laying chickens at the age of 26 weeks were selected for this study and continued for a period of 42 weeks. The birds were distributed in four dietary groups having 40 birds in each group with 4 replications having 8 birds per replication. The dietary treatments were produced from the basal feed as follows: control (T_1), *M. oleifera* leaf meal (MOL) 0.5% (T_2), MOL 1.0%, (T_3) and MOL 1.5% (T_4). The birds were randomly distributed in each pen, and the data were analyzed using the SPSS statistical package. The study revealed that the yolk cholesterol and serum cholesterol levels in hens as influenced by dietary treatments were significantly reduced ($P< 0.05$) in all additive groups. All additives diet the yolk omega-3 fatty acid levels were increased significantly ($P< 0.05$) with proportionate reduction in saturated fatty acid levels in MOL 1 and 1.5% groups. No significant changed was observed in the linoleic acid levels in yolk lipids. It was indicated that eggs, depending on their composition, can contribute significantly to human's daily requirement especially docosahexaenoic acid (DHA), high intakes of this fatty acid might reduce coronary heart disease. Based on these results, it is suggested that 1~1.5% of MOL may be added in the diet of native laying hen to increase the higher beneficial fatty acids in the yolk.

Biography:

Farhana Sharmin is working on Poultry Research and Development Project, at Livestock Research Institute, Bangladesh. Her research area is mainly into Value Addition in Poultry meat and egg.