

عنوان مقاله:

Supplementing a Herbal Product (NBS Superfood) in Diets Varying in Energy and Protein Levels: Effects on Productive Performance, Immune Response and Blood Parameters in Commercial Laying Hens

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خلاصه مقاله:

This study was conducted to determine the effects of Nutrition Bio-Shield Superfood® (NBS) supplementation in diets varying in energy (ME) and crude protein (CP) levels on the performance of Hy-line W-36 laying hens. The experiment was performed in a 5×2 factorial arrangement in a completely randomized design with five dietary levels of NBS (0, 0.5, 1.0, 1.5, 2.0 g/kg of diet) and two dietary nutrient levels (standard and 5% reduced ME and CP). The experiment was conducted during 63-74 weeks of age using 420 laying hens in 10 treatments and 6 replicates of 7 birds each. The egg production was not significantly affected by diet dilution, NBS levels, and their interactions. The diet dilution, NBS powder, and their interaction did not significantly affect egg mass. Except that, it was significantly decreased ($P < 0.05$) by the diluted diet during 66-68 weeks of age. Feed intake (FI) was not significantly affected by diet dilution, NBS levels, and their interactions. Except that, the diluted diet significantly ($P < 0.05$) decreased during 66-68 weeks. Feed conversion ratio (FCR) was not significantly different between standard and 5% diluted diet, among the NBS levels and the interaction means. Diluting the diet and NBS supplementation did not significantly affect blood parameters; however, diluted diet significantly increased ($P = 0.05$) blood LDL-c concentration compared to the standard diet. Anti-SRBC titers were not significantly affected by the diet dilution, dietary levels of NBS powder, or their interactions. The treatments did not affect eggshell strength and the eggshell Ca and P percentages. In conclusion, reducing dietary ME and CP by 5%, adding NBS to the diet and their interaction had no significant effect on the layers' performance, immune response, blood parameters but diluting the diet increased blood LDL-c concentration.

کلمات کلیدی:

Hen, NBS, Performance, blood parameters, Energy and protein

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