

THE INFLUENCE OF ENERGY AND PROTEIN LEVELS OF DIET ON EGG QUALITY

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ABSTRACT : The present investigations was carried out on 72 White Leghorn layers having similar body weight and body conformation, at 48 weeks of age and were equally divide into 6 groups. The experiment was based on 2x3 factorial design viz., 2 energy- 2700(E₁) and 3100 (E₂) Kcal ME/Kg., and 3 protein 15% (P₁), 18% (P₂) and 21% (P₃) levels in the diet for determination of its effects on the quality of egg production. The observations were recorded on 6 eggs randomly collected from the last two days samples in each group, over a period of 11 weeks. The egg production was significantly ($P<0.01$) higher on higher energy and reduced significantly ($P<0.05$) on increased protein levels of diet. The egg weight ($P<0.01$) and specific gravity ($P<0.01$) were highest in E₂ than E₁ group whereas, albumen index and yolk index both were significantly ($P<0.01$) higher in E₂ group than its counter part. On 18% protein albumen index ($P<0.05$) and yolk index ($P<0.01$) were higher than 15% and 21% levels of protein. Other traits were not affected significantly by different energy and protein level of diet. The interaction effect of different levels of energy and protein on egg production was significantly ($P<0.01$) higher in E₂P₁ than other groups, but other traits were not significantly affected.

Key Words : Energy, protein level, egg quality.