

## **IMPROVING HATCHABILITY OF LATE EGGS LAID WITH DIETARY SUPPLEMENTAL OF PYRIDOXINE AND FOLIC ACID OF FAYOUMI STRAIN**

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### **ABSTRACT**

An experiment was carried out at the poultry research station, El-Fayoum, Animal Production Research Institute, Agriculture Research Center, Ministry of Agriculture, Dokki, Egypt, during the year 2005. A total number of 144 hens and 12 cocks from Fayoumi strain of 48 wk old to determine whether hatchability can be improved by using folic acid or pyridoxine supplementation in diets during the late stages of laying season. Birds were divided to 3 equal groups (48 hens + 4 cocks each) of 4 replicates each. A corn-soybean meal basal experimental layer diet was formulated of being 16.5 % CP & 2700 kcal.ME/kg diet. Three dietary treatments were used: an unsupplemented practical corn-soybean meal basal diet; the basal diet supplemented with 1 mg folic acid 6 mg pyridoxine /kg of diet. Response criteria included egg production-related traits, egg fertility and hatchability and egg quality traits.

#### **The following results were obtained:**

- Hens fed folic acid-supplemented diet showed the highest feed intake. Hens fed pyridoxine-supplemented diet resulted in significantly higher egg weight, egg number and egg mass as compared to those fed control diet.
- Hens fed folic acid-supplemented diet gave the highest fertility and hatchability % followed by those fed pyridoxine-supplemented diet as compared to those fed control diet.
- Hens fed folic acid-supplemented diet gave the highest egg shape index however, hens fed pyridoxine-supplemented diet gave similar egg shape index as compared to those fed control diet. Albumin % and albumin height were not significantly affected by different treatments during the different experimental periods.

From the nutritional point of view, under the present experimental conditions, it is advisable to add 1 mg folic acid or 6 mg pyridoxine /kg of laying hen diet. Such practice helps in improving laying performance, fertility, hatchability and egg quality and seems to be advantageous in decreasing chick abnormalities.