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News

Injection of Selenium in the Fertile Eggs Improved the Growth Performance of Chicks

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Due to the time needed for hatchery treatments and transportation to the rearing farm, chicks typically need a few hours or days before they have access to food. Gaining a head start in the hatchery is crucial for commercial poultry rearing to increase earnings.

It is frequently believed that feeding the chick while it is still in the embryonic stage would give it more nutrients needed for better starting weights, better feed consumption, and quicker growth. Although early research is being conducted in numerous labs to assess the impact of selenium on the performance of poultry, many of these studies have only used it as a feed item supplement.

The purpose of this study was to ascertain how the *in ovo* injection of selenium affected the capacity of Isa Brown fertile eggs and the post-hatch performance of progenies.

The experiment was conducted at the agronomic experimental station's chicken production lab, part of the Regional Center of Excellence in Poultry Science. For this investigation, a total of 750 hatching eggs from Isa Brown breeders were utilized. The eggs were weighed and assigned numbers before being incubated. Through the perforations, several solutions were introduced into the eggs. Using an automated syringe, the correct solution for each batch of eggs was injected at a rate of 0.1 mL per egg. The eggs were moved into the hatching baskets and put in the hatcher for hatching after the injection. Both holes were then taped up with adhesive paper tape. The eggs were taken from the hatcher between 456 and 516 hrs of incubation and examined every 3 hrs to determine the Internal Piping (IP), External Piping (EP) and Hatching time (Ha) for each egg.

The outcomes demonstrated that the negative control group's exterior piping (477.5 hrs) and hatching (468.7 hrs) times were significantly (p 0.05) shorter than those of the other treatments. When compared to the other eggs, the mortality rate for the eggs that got the saline injection was substantially higher (p 0.05). Regarding the relative yolk sac and liver weights, there were no differences between the various treatments that were statistically significant (p>0.05). *In Ovo* feeding is a recently created technology that has been employed in the poultry industry during the incubation period. The fact that the embryos were not disturbed while they were hatching can be used to explain why the negative control for External Piping (EP) and the hatch had the shortest durations in the current study.

The best incidence of hatching was observed in eggs receiving 200 g of selenium, which was

administered *in Ovo* to viable eggs during 18 days of incubation (76.32%). The best quality chicks came from eggs that had 300 g of selenium injected into them. As the selenium concentration rose, the quality of the chicks improved. Therefore, the post-hatch weight of chicks from eggs injected with selenium was better, and the chicks with the highest selenium content had the highest weight.

Article Reference

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KEYWORDS

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