

Advancing Poultry Performance: The Impact of the Triangle Chick Program on Yolk Sac Absorptions

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Trial Conducted by

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Evaluation of Yolk Sac Re-absorption in Hy-line Brown Layer Chicks

1. Introduction

The purpose of this trial was to evaluate the effectiveness of the Triangle Chick Program (a natural, non-antibiotic regimen) compared to an antibiotic-based treatment. The main parameter under evaluation was the re-absorption of the yolk sac at 52 hours post-hatch. The trial was conducted on 1222 Hy-line Brown layer chicks, divided into four groups: A, B, C (treated with the Triangle Chick Program), and A1 (treated with antibiotics).

2. Objectives

- To compare the rate of yolk sac re-absorption between chicks treated with the Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®]) and those treated with antibiotics at 52 hours post-hatch.
- To determine the efficacy of the chick program in promoting early yolk sac re-absorption.

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3. Materials and Methods

3.1. Animals

- A total of 1222 Hy-line Brown layer chicks were divided into four groups:
- Groups A, B, and C: Triangle Chick Program treatment (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®]).
- Group A1: Antibiotic treatment with basic electrolyte.

3.2. Trial Design

Group A1 (Antibiotic Treated):

- Treated with Cephalexin (75mg/g) at the rate of 5g/10L water.
- Basic sugar and salt-based electrolytes were administered through drinking water.

Groups A, B, and C (Chick Program Treated):

- Treated with Dr. Yes [®] WS at a dose of 2g/10L water.
- ElectroMet Rx[®] Liquid at 1mL/10L water.
- ElectroMet Rx[®] Gel and Bio-Org+ Gel[®] at a dose of 0.2g/chick, administered for 5 days.

3.3. Post-Mortem Examination

At 52 hours post-hatch, 5 chicks from each group were randomly selected for post-mortem analysis. The yolk sac was carefully excised and weighed to measure the rate of yolk sac re-absorption (Fig-1 & Table-1).

4. Results

Table-1: The yolk sac weight data at 52 hours post-hatch for each group is presented below:

Chick Number	Group A (Chick Program)	Group B (Chick Program)	Group C (Chick Program)	Group A1 (Antibiotic Treated)
1	0.559	1.261	1.808	0.508
2	0.756	0.505	0.360	0.723
3	0.387	0.512	0.346	1.360
4	0.503	1.816	0.407	1.506
5	0.618	0.561	0.602	0.909
Total	4.823	4.655	4.523	5.006
Average	4.667 (for A, B, and C combined)			Difference with A1: 0.339g (7.264%)

Average Yolk Sac Weight (Chick Program Groups): The combined average yolk sac weight for the Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®])-treated groups (A, B, and C) was 4.667 grams.

Difference: The yolk sac weight in the antibiotic-treated group (A1) was higher, with a difference of 0.339 grams compared to the average weight of the Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®])-treated groups.

Percentage Difference: The percentage difference in yolk sac re-absorption between the two treatments was 7.264%, in favor of the Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®]).

Fig-1 Chicks yolk sac re-absorption measurement.

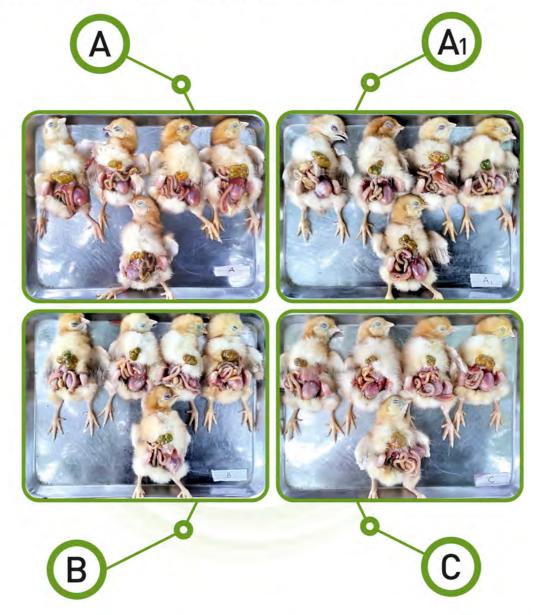


Fig-1: A, B, C – Chick Program (ElectroMet Rx[®] + Bio-Org[®] + Dr. Yes[®]) and **A1**- Antibiotic with Basic Electrolytes

5. Discussion

The results of this trial clearly indicate that the Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®]) facilitates better re-absorption of the yolk sac compared to traditional antibiotic treatment. The faster re-absorption of the yolk sac implies that chicks under the Triangle Chick Program may utilize nutrients more efficiently, leading to enhanced early growth and development.

Observations during the trial indicated that chicks with lower body weight upon arrival from the hatchery had a slower rate of yolk sac absorption. These chicks also exhibited a higher yolk sac weight at 52 hours post-hatch, which further correlated with lower weight gain during the first few days compared to the standard-weight chicks. This finding suggests that initial chick weight plays a crucial role in the rate of yolk sac absorption and subsequent growth performance.

Thus, chicks with lower starting body weight may benefit from additional nutritional support or management interventions to enhance early development and catch up to the standard weight range.

6. Conclusion

The Triangle Chick Program (ElectroMet Rx[®], Bio-Org+[®] & Dr. Yes[®]) significantly improved yolk sac re-absorption in comparison to antibiotic treatment, demonstrating its potential as a strong alternative for promoting chick health and growth in the critical first days post-hatch.



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