

Ecobiol®

enhanced survival and gut health of Necrotic Enteritis challenged broilers

Trials conducted in 2023, at Oklahoma State University, Stillwater, OK, United States



Necrotic enteritis (NE) is a common and costly challenge in modern poultry production, leading to significant losses in performance and survival. Ecobiol® is a spore-forming probiotic based on *Bacillus CECT 5940*. It is designed to have fast outgrowth in the animal's intestine, enabling quicker onset of probiotic activity and improving gut health and growth performance.

OBJECTIVE

To evaluate the effect of Ecobiol® supplementation on survival and gut health of NE-challenged broilers.

ANIMALS

Day-old male Cobb 500 broilers (2 replicate pens, 15 birds / pen in trial 1, 15 or 20 birds/ pen in trial 2).

TREATMENTS

In both trials 1 and 2, birds received *Eimeria maxima* on day 10 and *C. perfringens* on day 14 to induce a NE challenge. Improved Ecobiol® or a commercial *Bacillus* based probiotic (SP) with average outgrowth speed was supplemented during days 0-17 of age at 500g/t (1×10^6 CFU/g feed).

Treatments

CON: basal diet (only in Trial 1)

NE: basal diet, NE challenge

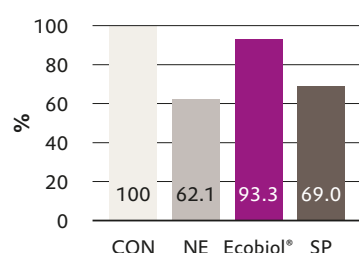
Ecobiol: NE + improved Ecobiol®

SP: NE + SP.

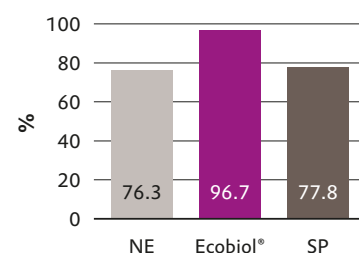
RESULTS

Ecobiol® outperforms the standard probiotic in enhancing survival rate of NE-challenged broilers.

Trial 1: Survival rate (days 10-17)

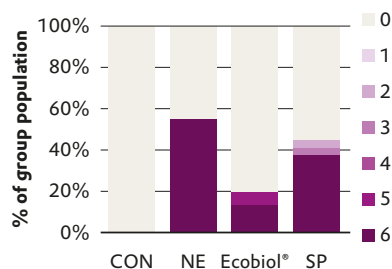


Trial 2: Survival rate (days 10-17)

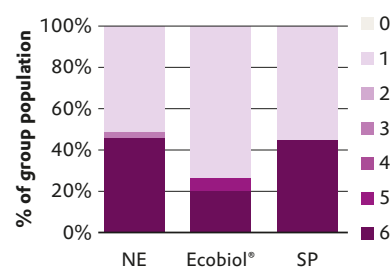


Ecobiol® outperforms the standard probiotic in reducing intestinal lesions of NE-challenged broilers.

Trial 1: Intestinal lesion score (day 17)



Trial 2: Intestinal lesion score (day 17)



Ecobiol® and standard probiotic supplementation consistently improved body weight gain (days 10-17) compared with NE-challenged broilers in trials 1 and 2.

CONCLUSION

Dietary supplementation with Ecobiol®:

1. Shows a positive effect on survival, gut health and weight gain of broilers under NE challenge conditions
2. Consistently outperforms the standard probiotic with respect to survival and gut health
3. Supports improved animal performance and profitability

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