



Efficacy of B-Act® to manage necrotic enteritis in boiler chicken

Trial description

1 Set-up

- **Location:** Southern Poultry Research, US
- **Animals:** 400 birds, with 200 birds per treatment housed in pens of 25 birds resulting in 8 replicates per treatment
- **Set-up:**
 - All birds were sprayed with regular dose of coccidiosis vaccine at day 1 of age and placed on clean bedding
 - Birds were weighed at day 14 and 22
 - Birds were orally inoculated with 10^8 cfu/bird *Clostridium perfringens* causing necrotic enteritis on days 19, 20 and 21.
 - A necropsy on 20 birds per pen was carried out and necrotic enteritis lesion scores were evaluated at day 22.

2 Treatments

Birds were randomly assigned to the following 2 treatments:

- A control group
- A group fed a diet containing B-Act® at 0.5 kg/mton (1.6×10^{12} cfu/mton of feed)

B-Act® is a probiotic feed additive containing viable spores of a strain of *Bacillus licheniformis* (DSM 28710).

3 Measured parameters

Growth performance, mortality and necrotic enteritis lesion score.

Results

Performance data, mortality and average necrotic enteritis lesion scores are shown in *Table 1*. Average weight (kg), feed conversion ratio and mortality (%) were significantly ($P < 0.05$) improved in the B-Act® group. A significant ($P < 0.05$) improvement was also found in average necrotic enteritis lesion score when B-Act® was added to the diet of broilers at 0.5 kg/mton (1.6×10^{12} cfu/mton of feed).

Table 1. Average weight (kg), feed conversion ratio, mortality (%) and average necrotic enteritis lesion score in control and B-Act® group

	Control group	B-Act® group
Average weight (kg)	0.71 ^a	1.01 ^b
Feed conversion ratio	1.529 ^a	1.413 ^b
Mortality (%)	14.00 ^a	4.00 ^b
Average necrotic enteritis lesion score	0.45 ^a	0.22 ^b

^{a,b} values with different superscripts within a row differ significantly ($P < 0.05$)

Conclusion

Under the present study conditions, B-Act® significantly reduced the occurrence of necrotic enteritis, resulting in reduced mortality and improved performance.