

# Edema disease vaccination as a tool to eliminate colistin use after weaning in a Shigatoxin 2e positive farm



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## Introduction

The objective of this study was to explore the use of a commercial vaccine against edema disease (ED) in nursery piglets from a farm with history of ED as a tool to eliminate the use of colistin.

## Material and Methods

A total of 1824 nursery pigs were monitored. Group A (n = 480) received feed supplemented with zinc oxide, colistin and amoxicillin. The following batch, Group B (n = 1344), received feed with zinc oxide and amoxicillin, and was divided into 2 sub-groups (n = 672 each): vaccinated (group V, Ecoporc SHIGA<sup>®</sup> administered at 7 days of age) and non-vaccinated (group NV). All pen-group weights were recorded on days of life 28 (weaning), 42 and 63. Average daily gain (ADG), average daily feed intake (ADFI) and feed conversion ratio (FCR) were calculated. Mortality rate (MR) during the study was recorded. Growth performance was analyzed by ANOVA (SAS, v9.0). Means were separated by the test of Tukey-Kramer. MR was analyzed as binary variable, using chi-square test.

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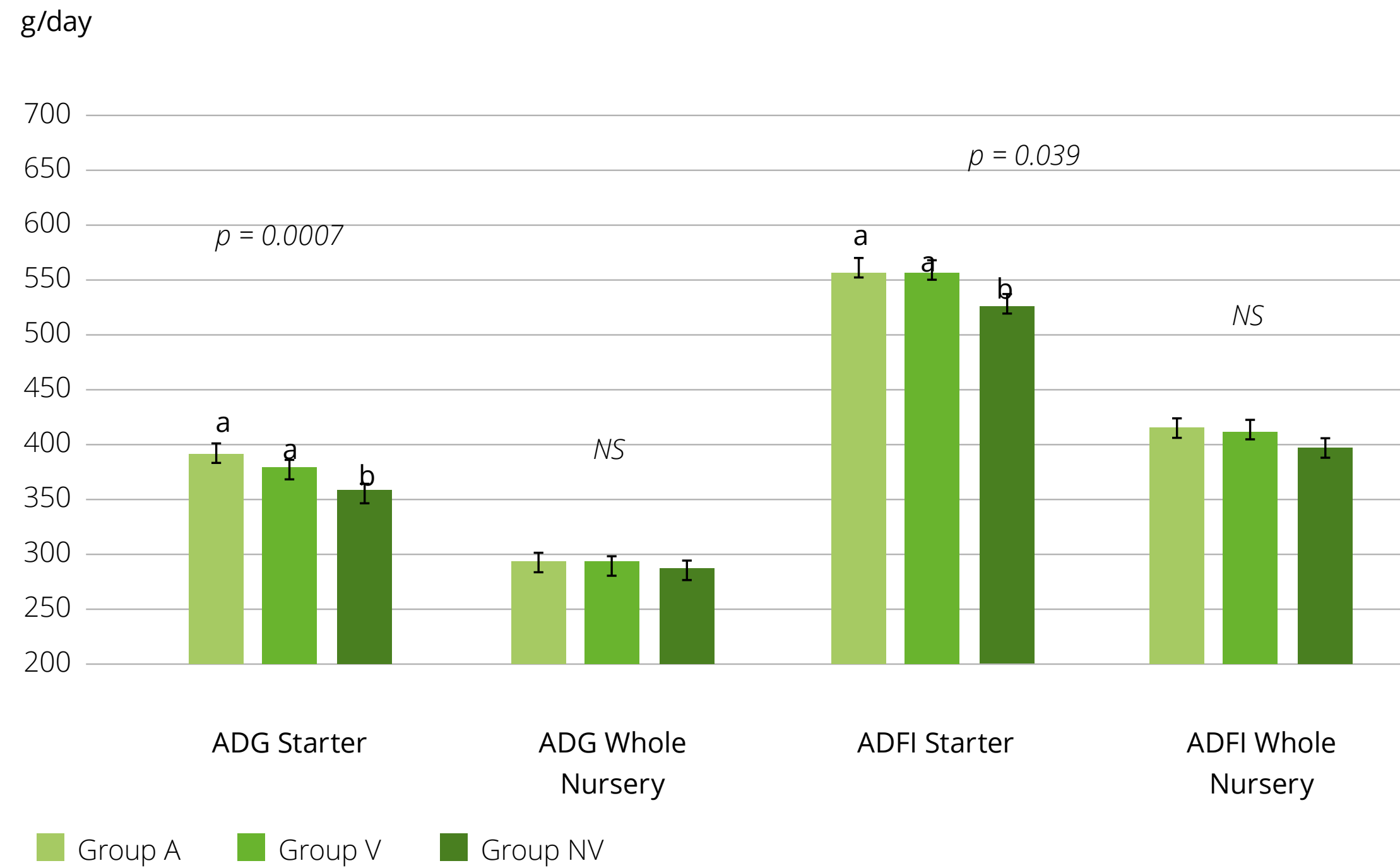
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## Headline graphic



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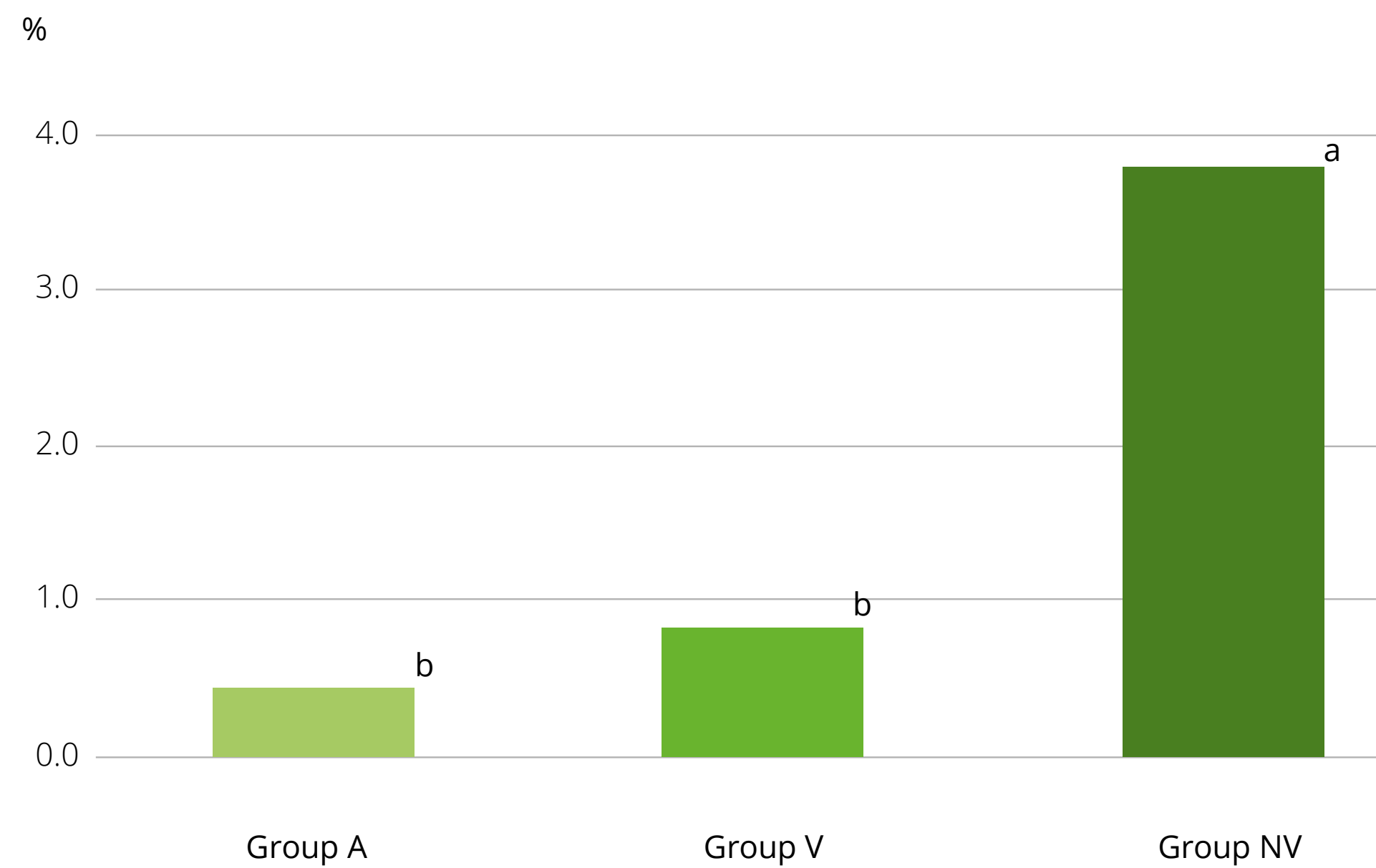
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**Mortality Rate**



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## Results

Group A: ADG and ADFI for the 28-63 and 42-63 day-periods, and FCR for the whole study period were 294.4/390.7 g/d, 413.6/554.6 g/d and 1.408, respectively. MR was 0.42 % in these batches. Group V: 293.7/377.6 g/d, 411.6/553.2 g/d and 1.413, respectively, while the MR was 0.80 %. Group NV: 287.9/355.4 g/d, 394.9/523.7 g/d and 1.407, respectively, with a MR of 3.80 %. ADG and ADFI for the whole study period were not significantly different among groups; the ADG and ADFI of the 42-63 day-period was significantly higher in the A and V groups. FCR was not significantly different among groups. MR was significantly lower in A and V compared to the NV groups.

## Discussion and conclusions

Based on the present results, vaccination against ED seems a useful tool to facilitate the antibiotic use reduction in farms with historical cases of ED.