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COMPARISON OF TWO ATROPHIC RHINITIS VACCINES FOR YOUNG PIGS

D. A. Schoneweis¹ and R. H. Hines

Summary

Two farrowing groups (340 pigs) were used to evaluate two atrophic rhinitis vaccines (Atrobac III® and Toxivac®) for the young pig. Both vaccines were effective, because no clinical evidence of atrophic rhinitis was observed for either treatment during the experiment. Although the swine herd had been observed in previous farrowing do have various degrees of conjunctivitis, none was observed in the pigs vaccinated with either vaccine. Weight gains of pigs at 14 d and 35 d postweaning were the same for each treatment.

(Key Words: Starter, Performance, Disease, Rhinitis.)

Introduction

Atrophic rhinitis continues to be a challenging and perplexing problem in the swine industry. Research has indicated that the primary causes of this complex are Bordetella bronchiseptica and/or Pasteurella multocida type D. The combination of these organisms in a susceptible animal and poor facilities can cause severe economic losses from retarded growth. Clinical signs of atrophic rhinitis are primarily twisted and/or shortened noses, which may result in pigs failing to grow even when management is excellent. This experiment was conducted to evaluate two commercially available bacterin-toxoids that may be used for the prevention of atrophic rhinitis.

Procedures

Two farrowing groups of pigs (340 pigs) were used. Half of each litter (odd no. pigs) received one injection of Atrobac III® at 5 to 7 d of age and a booster injection at the time of weaning (age at weaning varied from 19 to 28 d). The second group of pigs (even no. pigs) received one injection of Toxivac® at the time of weaning. The weights at weaning and at 14 d and 35 d postweaning were evaluated. There was no opportunity for a slaughter check to determine whether there was a difference in lung and turbinate scores. No unvaccinated controls were used.

Discussion

None of the pigs showed evidence of discomfort, swelling, or injection reaction following vaccination, either at 1 wk or 3 wk. There was no clinical evidence of atrophic

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rhinitis in any of the pigs up to the conclusion of the 35-d postweaning period when the pigs were 8 to 9 wk of age. Various degrees of conjunctivitis had been a problem in previous farrowing; however, none of the pigs in this experiment showed any marked evidence of conjunctivitis. CSP-250 was added to the nursery rations. All sows had been vaccinated prior to farrowing with Toxivac®.

Table 1 presents the pig weight data for the two treatment groups at weaning (age at weaning varied from 19 to 28 d within each farrowing) and at 14 d and 35 d postweaning. No postweaning differences in pig weight were observed for either treatment.

Table 1. Pig Weights of Pigs Vaccinated with either Atrobac III® or Toxivac®

Vaccine ^a	Atrobac III®	Toxivac®
No. pigs	175	165
Weaning wt, lb	13.07	13.06
14 d postweaning, lb	22.66	22.42
35 d postweaning, lb	42.08	41.83

^aAtrobac III - Smith, Kline, Beecham, Lincoln, NE.

^aToxivac AD - Noble lab, Sioux Center, IA.



Steve Hargrave, KSU swine unit manager.