

DURATION OF PROTECTIVE IMMUNITY AGAINST ATROPHIC RHINITIS IN PIGLETS AFTER VACCINATION OF GILTS USING RHINISENG® UNDER FIELD CONDITIONS

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INTRODUCTION

Sows and gilts are commonly vaccinated to protect their offspring against atrophic rhinitis (AR) caused by toxigenic strains of *Bordetella bronchiseptica* and *Pasteurella multocida* type D (PMT). RHINISENG® is a vaccine for the prevention of progressive and non-progressive AR in swine, indicated for pregnant sows and gilts; it contains HIPRAMUNE® G^d as an adjuvant based on ginsenosides.

The aim of this study was to evaluate the duration of passive immunity against progressive AR in piglets of gilts vaccinated with RHINISENG®.

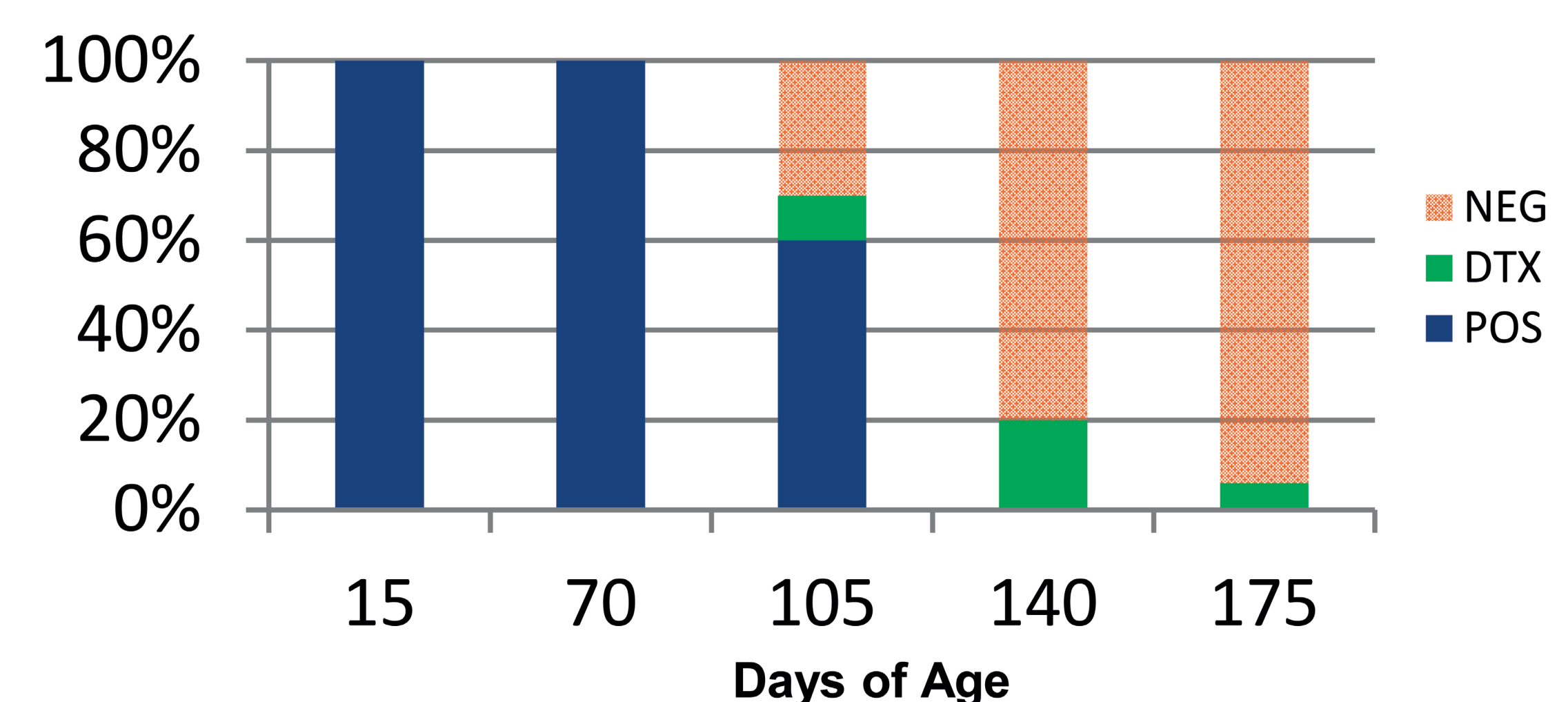
MATERIALS AND METHODS

This field trial was performed on a 120-sow single-site farm in France, with a total of 20 piglets from nulliparous sows. Gilts received two doses of RHINISENG® in quarantine. The animals were vaccinated twice intramuscularly 6 and 3 weeks prior to mating, and given a third injection 3 weeks before farrowing. RHINISENG® was administered intramuscularly with a 2 ml dose. Serum samples were collected from piglets at 15, 70, 105, 140 and 175 days of age. Antibody levels against PMT were quantified with a commercial ELISA (Oxoid).

RESULTS

At 15 days of age, 100% of the piglets analyzed were positive to PMT. At 70 days of age, on entering the fattening unit, 100% of the animals were still positive. At 105 days, 60% of the animals remained positive against PMT, 10% were doubtful results and 30% were negative. At 140 and 175 days of age, 100% of the animals were negative to PMT.

Figure 1. Percentage of positive animals to anti-PMT antibody



CONCLUSIONS AND DISCUSSION

The study revealed that the immunization of gilts with three doses of RHINISENG® prior to the first farrowing induced a robust humoral response that resulted in a high and homogeneous concentration of colostral antibodies in piglets. The duration of passive immunity against PMT exceeded 70 days of age in all animals and it began to decrease towards 105 days of age in piglets from gilts vaccinated with RHINISENG®.



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