“EFFICACY OF UNISTRAIN® PRRS ON FARMS WITH PREVIOUS OUTBREAKS OF PRRS IN A MULTICENTRIC FIELD TRIAL”

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INTRODUCTION

The aim of this study was to evaluate under field conditions the efficacy of UNISTRAIN® PRRS in piglets from farms with a clinical history of PRRS outbreaks and current virus circulation.

MATERIALS AND METHODS

A multicentric, randomized, double blinded and controlled trial was carried out in 2,037 piglets from 3-4 weeks of age at vaccination. The trial took place on 3 commercial farms (farms nº 1, 2 and 3) in Spain with previous PRRS outbreaks and current virus circulation. The animals on each farm were randomly divided into two treatment groups: the vaccinated group (n=1,057) received 2 ml of UNISTRAIN® PRRS by the intramuscular route and the control group (n=980) was injected with 2 ml of PBS (phosphate buffered saline). To assess the efficacy of the vaccine, different parameters were evaluated: viraemia (RT-PCR), mortality, number of animals treated with antibiotics and, finally, animals with lung lesions positive to PRRSV (RT-PCR). The Chi-square test and a Mann-Whitney U test were used ($p<0.05$).

RESULTS

The percentage of viraemic animals in the vaccinated group was statistically lower than in the control group after entry into the fattening unit at 45 days post vaccination (dpv) (on farms 2 and 3, Figure 1) and at 90 dpv (on farm 1, 2 and 3, Figure 2). On all three farms the percentage of mortality was lower in the vaccinated group compared to the control group, being statistically different on farm nº 1 (1.02 % vs. 4.8 %, Figure 3). The percentage of animals treated with antibiotics was lower in the vaccinated groups on two farms (farm 1: 5.6 % vs. 9.2 %; farm 2: 9.3 % vs. 13.9 %). Moreover, the percentage of piglets with lung lesions among RT-PCR PRRSV positive animals was statistically lower in the vaccinated group on two of the 3 farms (farm 1: 0 % vs. 54.5 %; farm 2: 0 % vs. 28.6 %).

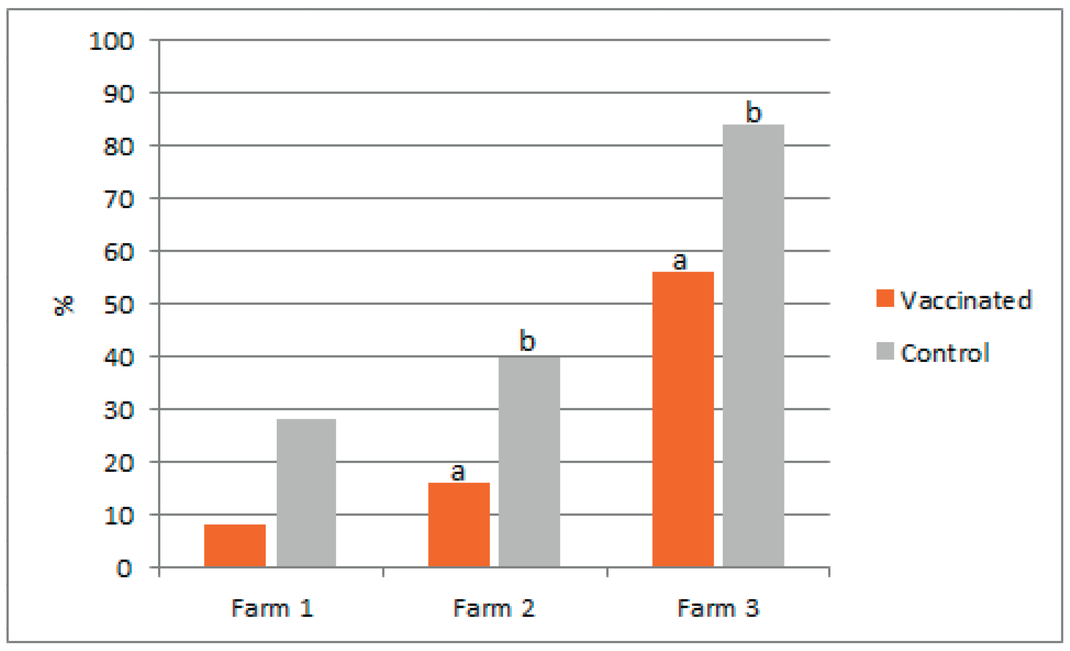

Figure 1. Percentage of PRRS positive piglets in sera at **45** dpv on farm 1, 2 and 3. [a,b] Different superscripts indicate statistically significant differences between groups ($p<0.05$).

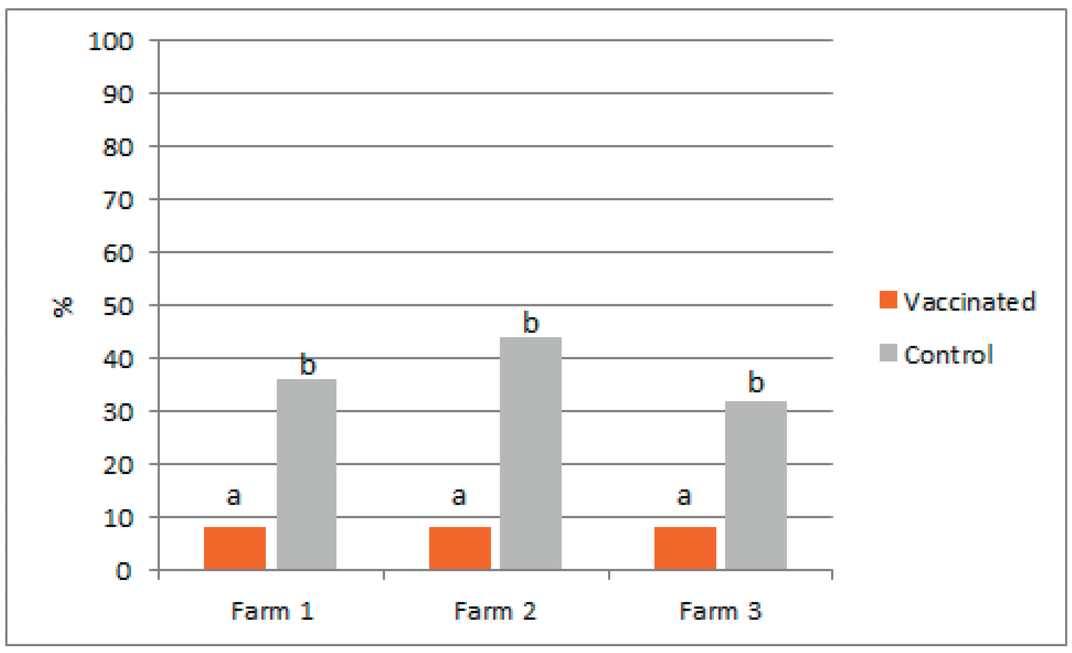

Figure 2. Percentage of PRRS positive piglets in sera at **90** dpv on farm 1, 2 and 3. [a,b] Different superscripts indicate statistically significant differences between groups ($p<0.05$).

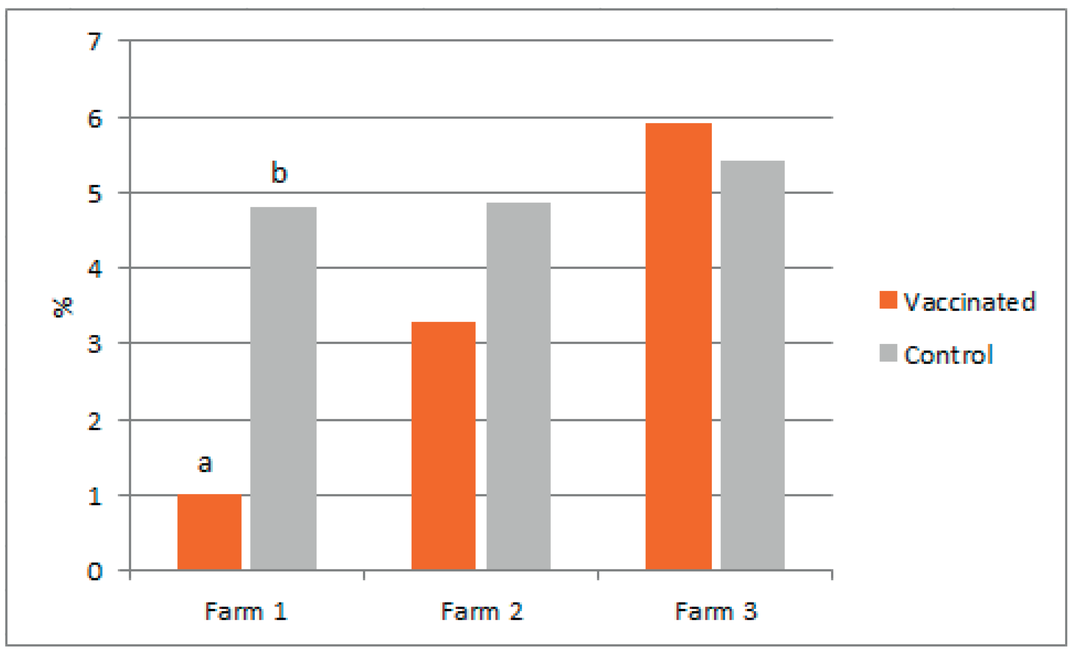

Figure 3. Percentage of mortality during the trial. [a,b] Different superscripts indicate statistically significant differences between groups ($p<0.05$).

CONCLUSIONS AND DISCUSSION

Vaccination with UNISTRAIN® PRRS was demonstrated to be a useful tool to reduce mortality, animals with lung lesions positive to PRRSV, number of viraemic animals and the percentage of animals treated with antibiotics on farms with a previous history of PRRS outbreaks. UNISTRAIN® PRRS is effective in piglets and it is a useful tool to reduce the negative clinical and productive consequences of PRRSV infection in the field.

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