

Improving reproductive, nursery and fattening performance in 11.700 sows after implementing UNISTRAIN® PRRS vaccination

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Introduction

One of the largest pig companies in Italy (11.700 sows) had been experiencing PRRS reproductive problems since 2011 despite being vaccinating with a MLV commercial available vaccine (EU strain). In the present study reproductive, nursery and fattening records are summarized after switching to another European MLV commercial available vaccine (UNISTRAIN® PRRS) in 2013.

Materials and Methods

7 PRRS positive sow-herds with recurrent clinical PRRS outbreaks despite vaccinating with a MLV EU commercial available vaccine were used in this trial. A total of 11.700 productive sows are distributed in 7 different herds (6 commercial sow farms and one GP farm producing the future breeders for the other 6 commercial farms). Each sow farm has its own nursery facilities, but not fatteners present. All gilts are vaccinated with MLV vaccine at arrival and monitored by serology before the first insemination. Due to poor reproductive performance during 2011 and 2012, in September 2013 was decided to replace the vaccine to UNISTRAIN® PRRS and the following vaccination protocol was implemented: 3 mass vaccinations per year and 3 doses/gilt before the first mating. To compare the efficacy of both vaccines reproductive, nursery and fattening performance of the 9 following months after changing the vaccine were compared with the same period of the year before.

Results

At reproductive level, farrowing rate, percentage of abortions, total piglets born alive/sow/year and number of stillbirth improved when using UNISTRAIN® PRRS (77.14 vs. 86.68; 3.7 vs. 1.9; 27.15 vs. 28.82; and 7.84 vs. 7.15, respectively). Regarding piglet performance in farrowing rooms mortality, average body weight at weaning and number of weaned piglets/sow/year were also improved (11.79 vs. 10.26; 6.34 vs. 6.58; and 23.68 vs. 25.78; respectively).

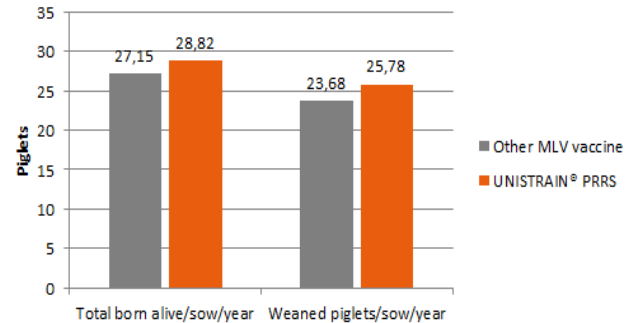


Figure 1: total born alive and weaned piglets/sow/year

Besides, mortality in both nursery and fattening units also decreased (4.48 vs. 3.73; and 3.84 vs. 3.52, respectively). Average daily gain improved (701 vs. 712 g/day).

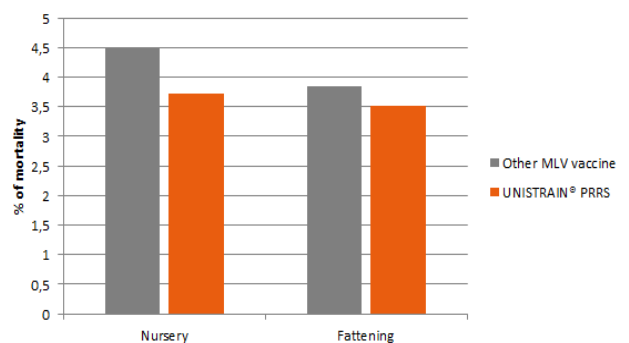


Figure 2: Mortality in nursery and fattening units

Conclusions and Discussion

When discussing about PRRS vaccine strain efficacy, one of the most important challenges for any vaccine strain is their ability to confer heterologous protection in front of arrival of new field strains. The present study is a good example to demonstrated that in front the same field challenge, the strain contained into UNISTRAIN® PRRS confers better heterologous protections than another EU strain MLV vaccine.