

# Data confirming confidence in Whole Herd mass vaccination program with Novel PRRS Type 1 modified live vaccine



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## INTRODUCTION

Vaccination is critical to reduce the severity and frequency of PRRSV-related reproductive problems. Whole Herd mass vaccination is recommended to avoid subpopulations of different immune status. Vaccination during the last trimester of pregnancy is considered most critical because vaccine virus can potentially cross the placenta. Likewise vaccination before breeding could affect litter size. Here a subset of field efficacy data of PRRS genotype 1 MLV vaccine (ReproCyc PRRS<sup>®</sup> EU) at various stages of gestation was evaluated.

## MATERIALS AND METHODS

Study 1 was conducted on a farm with 660 sows. A total of 283 sows and gilts were included in the study. On study day 0 sows and gilts were vaccinated with 2 ml ReproCyc PRRS<sup>®</sup> EU. To assess the efficacy of vaccination reproductive performance was recorded from all sows till D119. The percentage of piglets alive per litter at weaning for sows vaccinated in the last trimester of pregnancy (63), compared to the whole group of sows (220) was selected as primary criterion for the evaluation of vaccine efficacy. Secondary criterion was piglets born alive.

Study 2 was conducted on an endemically infected herd with 600 sows. All sows on the farm were vaccinated in a whole herd mass vaccination program with ReproCyc PRRS<sup>®</sup> EU. The number of piglets alive per litter at weaning for sows vaccinated within 14 days before farrowing (33), or 7 days before insemination (27), compared to the whole group of sows (365) was selected as the primary criterion for evaluation of vaccine efficacy. Secondary criterion was healthy piglets born alive. In addition, the number of piglets born alive was evaluated for naïve pregnant replacement gilts vaccinated at the same day as the sows at various stages of gestation was compared to the whole group of sows.

## RESULTS

In study 1, % of piglets born alive was the same for sows vaccinated in the last trimester of pregnancy (92.8) as for the total group of sows (93.2). Also the % of weaned pigs was the same for both groups (90.2% vs 89.1), Figure 1.

In study 2 there was no significant difference in the number of piglets born alive between sows vaccinated within the last 14 days of pregnancy (12.1), 7 days before insemination (12.1), within 21 days after insemination (11.3) naïve gilts (10.7) compared to the total group (11.4). Also the number of weaned pigs per litter was the same for sows vaccinated within the last 14 days of pregnancy (10.5) 7 days before insemination (9.9), within 21 days after insemination, (9.9) and gilts (10.0) compared to the total group (9.7), (Figure 2)

Figure 1: Study farm 1, Percentage of piglets born alive and piglets weaned after breeding herd mass vaccination

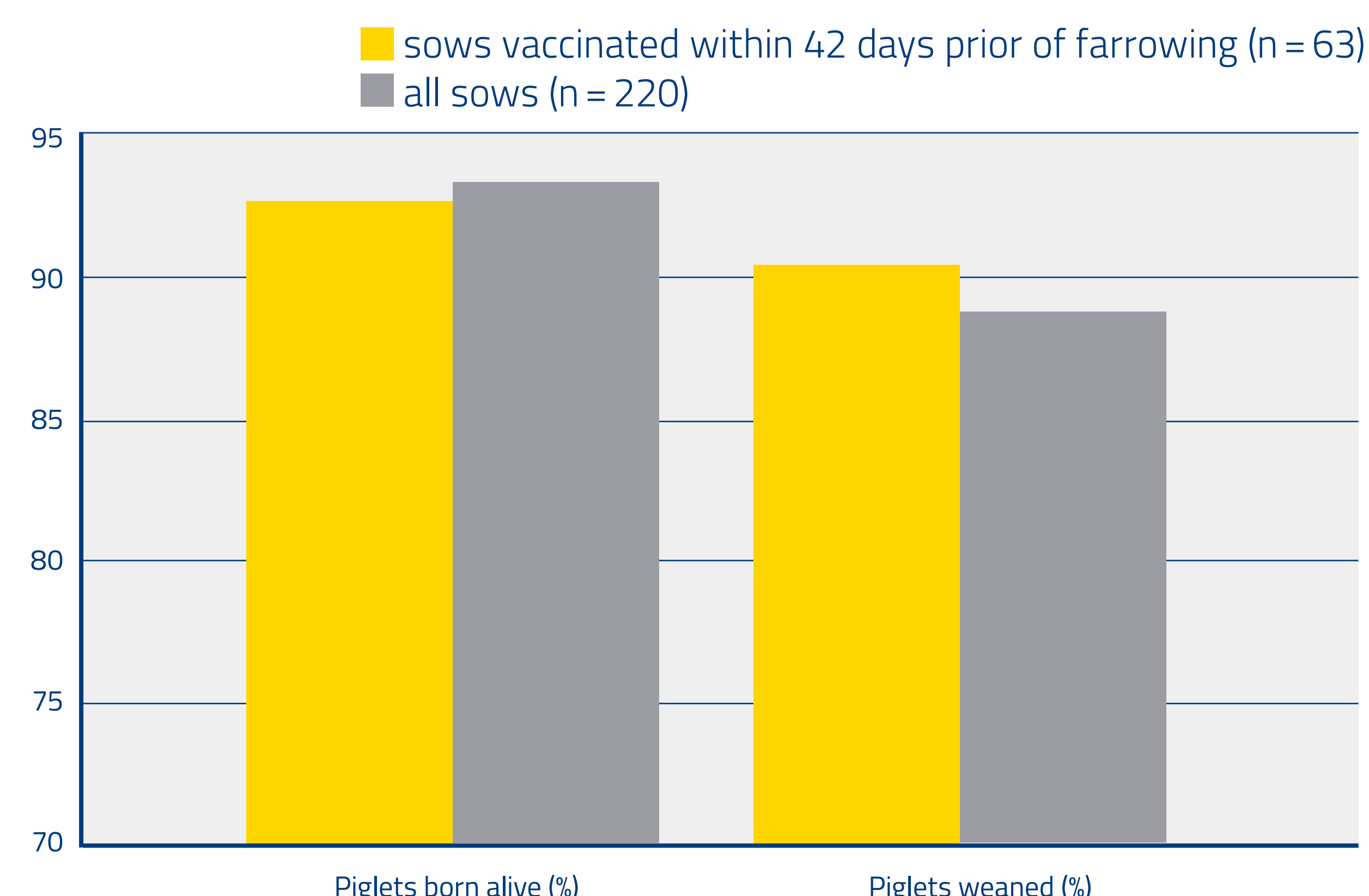
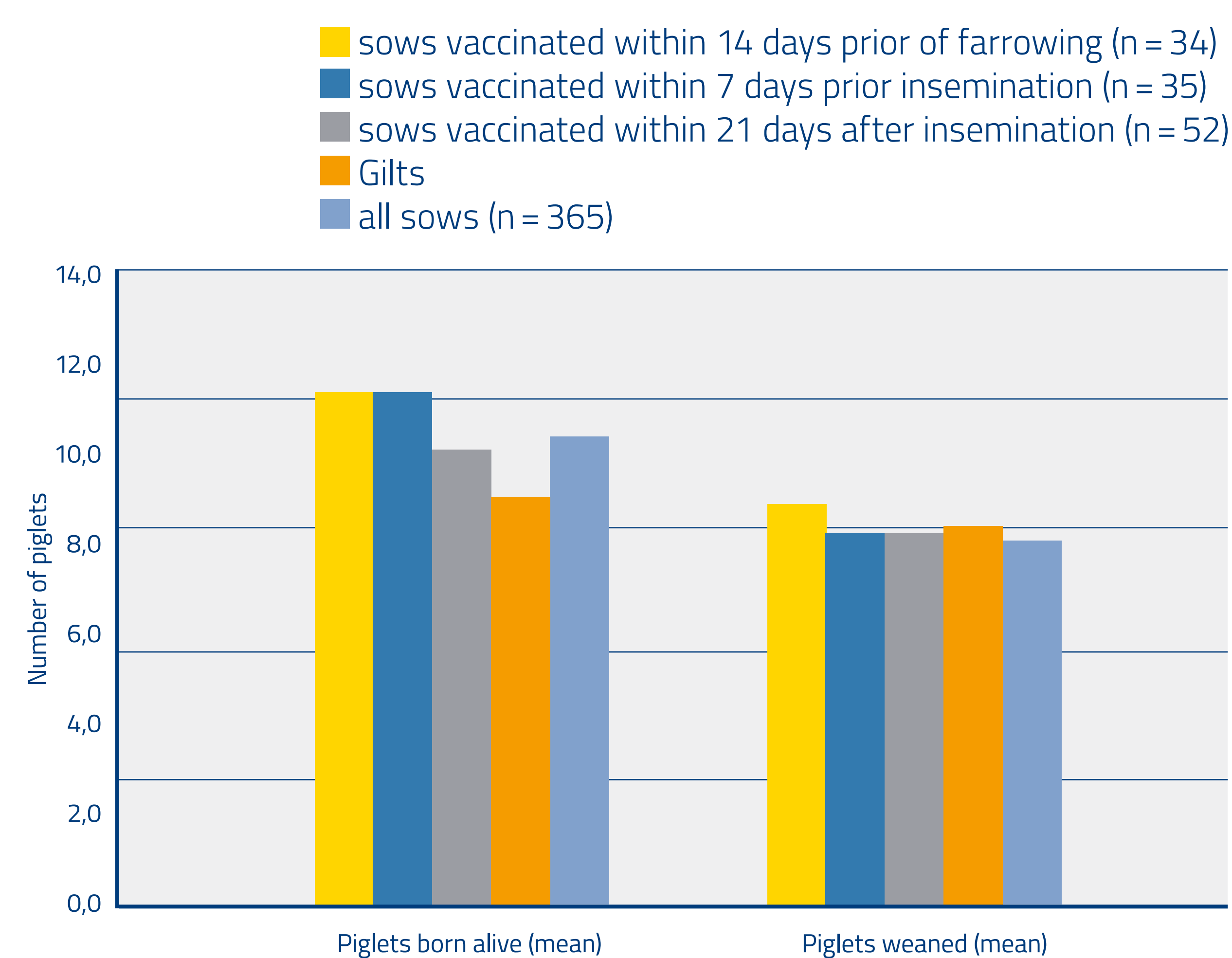


Figure 2: Study farm 2; Number of piglets born alive from sows vaccinated at different timepoints in the reproductive cycle in a whole herd mass vaccination program



## CONCLUSION AND DISCUSSION

These studies confirm the confidence in ReproCyc PRRS<sup>®</sup> EU as a safe vaccine to be used in Whole herd mass vaccination programmes without affecting sows or gilts vaccinated at the most critical time points in their reproductive cycle.

