# SAFETY AND EFFICACY OF THE COMBINED USE OF UNISTRAIN PRRS® AND AUSKIPRA® GN ADMINISTERED BY THE INTRADERMAL AND INTRAMUSCULAR ROUTES UNDER FIELD CONDITIONS

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## INTRODUCTION

The aim of this study was to demonstrate that the association of UNISTRAIN® PRRS and AUSKIPRA® GN applied by intradermal (ID) or intramuscular route (IM) were as safe and efficacious as when applied separately.

## MATERIALS AND METHODS

A randomised and blind clinical field trial was carried out in 30 gilts and 86 multiparous sows from a PRRS endemic farm.

The sows were distributed among three groups:

- Group 1 was vaccinated intradermally (Hipradermic®) with UNISTRAIN® PRRS mixed with AUSKIPRA® GN: 0,2 ml in one injection site.
- Group 2 was vaccinated intramuscularly with the association of UNISTRAIN® PRRS and AUSKIPRA® GN: 2 ml in one injection site.
- Group 3 (control group) was vaccinated intradermally with UNISTRAIN® PRRS and AUSKIPRA® GN applied separately in two different injection sites: 0,2 ml each.

In each treatment group, the gilts were vaccinated with both vaccines 8 weeks before mating and revaccinated 4 weeks later with AUSKIPRA® GN alone (0,2 ml ID groups 1 and 3, 2 ml IM group 2).

The multiparous sows were mass vaccinated with both vaccines. Clinical signs, local reactions and rectal temperature were monitored in all the gilts and in 10 multiparous sows from each group. Reproductive parameters after farrowing were recorded for all the animals included in the study.

## RESULTS

None of the animals included in the study showed any general clinical sign or mortality attributable to the administration of the products during the whole observation period. In the evaluation of local reactions, mild transient inflammation at the injection site was the only sign observed in the vaccinated sows. After vaccination, the temperature of all the vaccinated sows was within the physiological range.

**Figure 1.** *Multiparous*: Mean body temperature after vaccination.

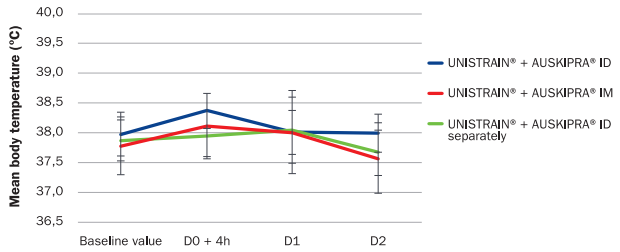
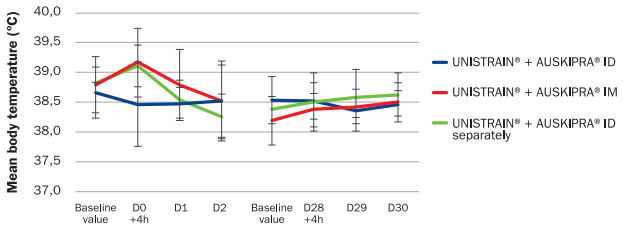



**Figure 2.** *Nulliparous*: Mean body temperature after vaccination.




Furthermore, no statistical differences were observed among groups in the reproductive parameters evaluated (born alive, stillborn and mummies).

**Figure 3.** Reproductive parameters (mean ± SD).

| *Nulliparous* | UNISTRAIN® + AUSKIPRA® ID | UNISTRAIN® + AUSKIPRA® IM | UNISTRAIN® + AUSKIPRA® ID separately |
|---|---|---|---|
| Born Alive | 12.3 ± 3.3 | 12.5 ± 1.4 | 13.0 ± 2.6 |
| Stillborn | 1.1 ± 1.3 | 1.7 ± 1.2 | 1.4 ± 1.3 |
| Mummies | 0.1 ± 0.3 | 0.2 ± 0.6 | 0.0 ± 0.0 |

| *Multiparous* | UNISTRAIN® + AUSKIPRA® ID | UNISTRAIN® + AUSKIPRA® IM | UNISTRAIN® + AUSKIPRA® ID separately |
|---|---|---|---|
| Born Alive | 16.0 ± 4.5 | 14.2 ± 3.8 | 15.8 ± 3.6 |
| Stillborn | 2.1 ± 2.1 | 3.9 ± 3.0 | 2.5 ± 2.4 |
| Mummies | 0.3 ± 0.8 | 0.9 ± 1.1 | 0.7 ± 1.6 |

*Significant differences between groups were not observed (Kruskall-Wallis; $p>0.05$).

## DISCUSSION

It was demonstrated that the association of UNISTRAIN® PRRS and AUSKIPRA® GN administered by the intradermal and intramuscular routes is as safe and efficacious as the administration of both products separately. Consequently, this vaccine combination is an alternative for the successful control of PRRSv and Aujeszky disease which reduces the workload of employees and improves the animal welfare.

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