

# Porcilis® PRRS

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**Happy to  
be healthy**



**Licensed**  
in breeding pigs and piglets

from **2** weeks of age

The PRRS vaccine for the entire herd



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# P

***Porcine Reproductive and Respiratory Syndrome, endemic in most pig producing countries, is one of the biggest problems facing the pig industry.***

***The effects in breeding herds are reproductive failure and signs of respiratory disease.***

***Weaned and finishing pigs suffer from respiratory disorders due to secondary infections<sup>1</sup>, which are made even more serious by the immuno-modulatory properties of the PRRS virus.***

## Control with Porcilis PRRS

- Whole herd control of PRRS is now possible using Porcilis PRRS, the only live, attenuated PRRS vaccine licensed throughout Europe for finishing and breeding pigs (sows and gilts).
- The aim in vaccinating with Porcilis PRRS is to obtain a high, homogeneous level of immunity against PRRSV, throughout the herd.
- In gilts and sows, Porcilis PRRS improves reproductive performance and reduces transplacental virus transmission. So PRRSV-free pigs can be weaned, ready to be vaccinated, before being exposed to the field challenge. The use of Porcilis PRRS in finishing pigs further extends this period of protection against the infection and improves their performance.
- As always, management practices have an important part to play. Gilts entering the breeding unit need to be acclimatized, strict adherence needs to be paid both to the all-in/all-out principle and to the unidirectional flow of animals during the nursery and growing phases.



# Porcilis<sup>®</sup> PRRS: the extended piglet claim

New vaccination scheme: from 2 weeks of age onward

In many herds, PRRSV field infection takes place during the nursery phase.

So early vaccination of the piglets, from 2 weeks of age onward, is a demand from the field.

This new schedule is a flexible solution which can satisfy even the most challenging epidemiological profiles, in which active immunity is required during the first half of the nursery period.

The use of diagnostic screening offers an accurate evaluation of field infection profiles, and thus helps in choosing the optimal vaccination schedule.



**PRRS virus infection:  
too costly to ignore**

# Porcilis<sup>®</sup> PRRS in 2-week-old piglets

## Challenge trial in PRRS maternally derived antibodies positive (MDA+) piglets

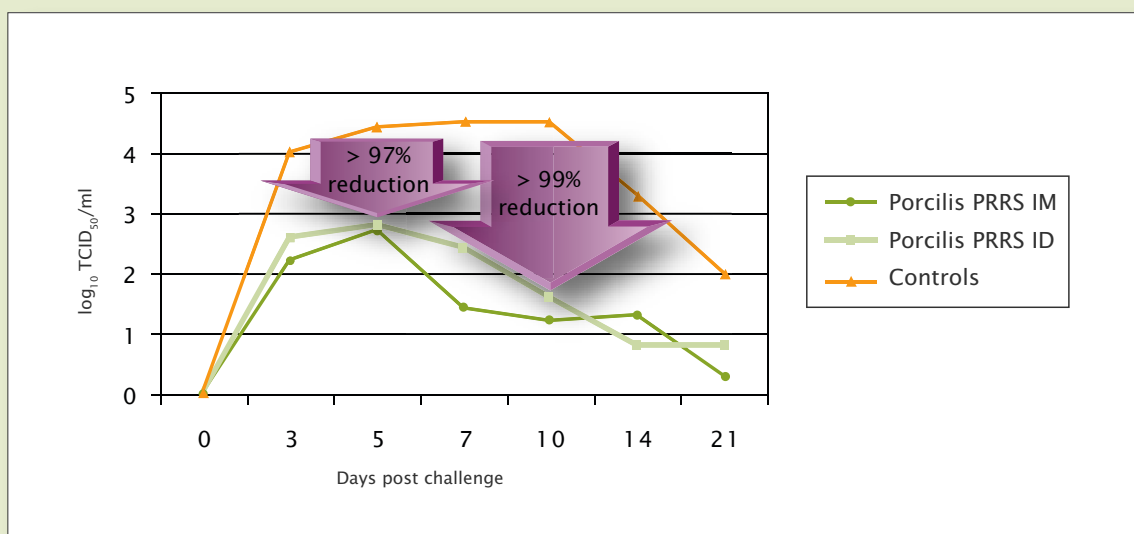
- Group 1:  
2-week-old piglets vaccinated with Porcilis PRRS by intramuscular administration
- Group 2:  
2-week-old piglets vaccinated with Porcilis PRRS by intradermal administration
- Group 3:  
2-week-old piglets unvaccinated, kept as negative controls

At 6 weeks of age, all the pigs were challenged with a PRRSV field strain

## Results

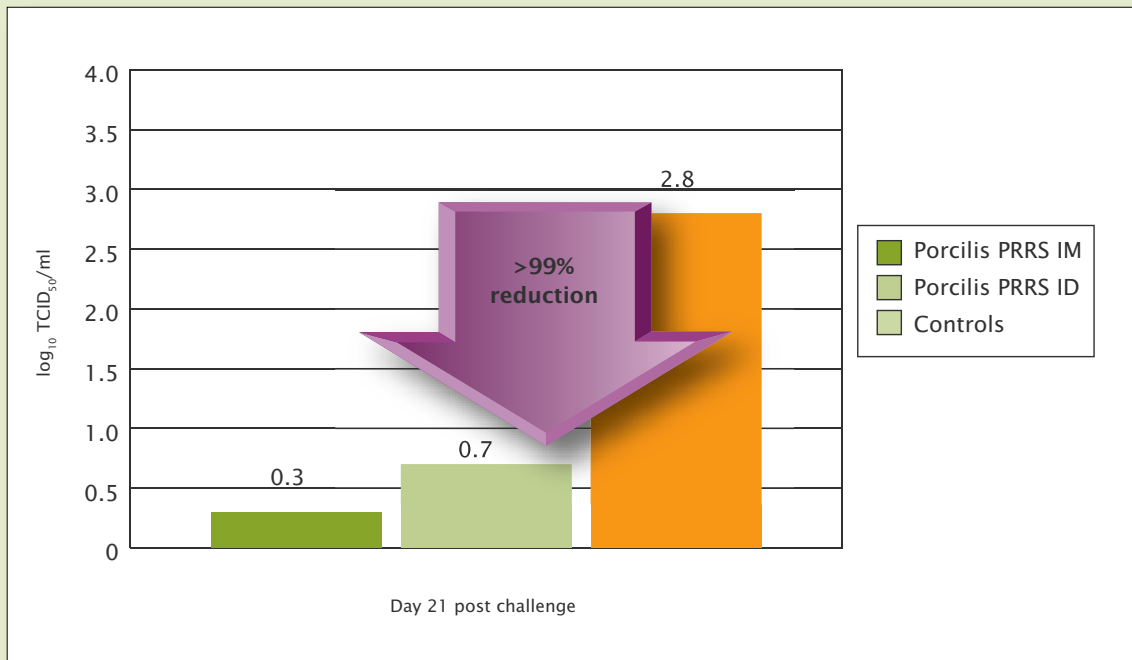
The efficacy of the vaccination was evaluated by measuring the titres of challenge PRRSV in serum and in the lung.

### *Challenge PRRS virus titration from serum*



The virus titres are measured as log<sub>10</sub>, so the reduction of the virus load in the vaccinated groups, in comparison with the control group, is almost complete. At 5 days post challenge, the reduction in viraemia is 97.5%, and by 10 days post challenge it has been reduced by 99.8%.

## Challenge PRRS virus titration from lung



In lung tissue, also, the reduction of the challenge PRRS virus is almost complete: a reduction of 99.2% between the control and the vaccinated groups.

## Conclusion

*Vaccination of PRRS MDA+ 2-week-old piglets resulted in a highly significant reduction in the level of challenge PRRS virus in the serum and lung of vaccinated pigs, when compared with controls.*

*Porcilis PRRS:*

- minimizes the multiplication of the field strain in vivo*
- prepares the immune system to fight against the PRRS infection*
- reduces the ability of the PRRS virus to induce clinical symptoms.*

*All this results in a lower field virus pressure on the farm, with all related advantages<sup>2</sup>.*

**...lower field virus pressure,  
higher pig performance...**

# Porcilis<sup>®</sup> PRRS in 2-week-old piglets

## Safety

The safety of the extended piglet claim has also been demonstrated. Vaccination with Porcilis PRRS had no negative effect on the performance of the 2-week-old piglets when compared to unvaccinated controls<sup>3</sup>.

This was tested by using:

- a maximum single dose
- an overdose
- repeated doses

Moreover, Porcilis PRRS does not alter the immune system at lung level<sup>4</sup>. This is a reflection of its safety, while at the same time offering more freedom in planning vaccination schedules as is documented by Witvliet<sup>5</sup> in relation to Porcilis M Hyo vaccination.



# Porcilis<sup>®</sup> PRRS

## Protection against reproductive signs

### Challenge trial in PRRSV-naïve gilts

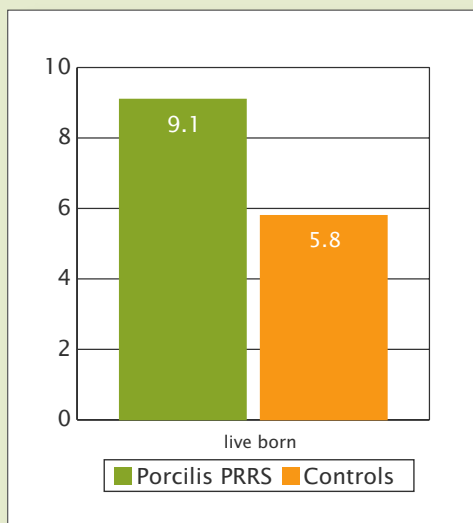
Two groups of PRRS-naïve gilts were used in this trial:

- Group 1: Vaccinated with Porcilis PRRS 2 weeks before mating (9 gilts)
- Group 2: Unvaccinated controls (6 gilts)

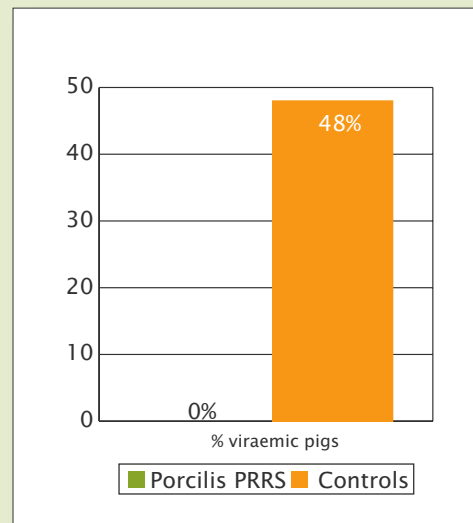
Both groups were challenged with a pathogenic field PRRS virus, strain I2 Lelystad-like, at 88 days of gestation.

### Results

*Pigs born alive per litter*



*Number of viraemic pigs*



### Conclusion

*Vaccination with Porcilis PRRS*

- *prevented transplacental virus transmission (100% reduction)*
- *increased the numbers of pigs born alive per litter (+57% increase)<sup>2</sup>.*

# Porcilis® PRRS

## Sow performance after vaccination

### A field trial in sows and gilts

In an endemically PRRS virus-infected farm 200 gilts and sows were divided into 2 groups of 100 animals each:

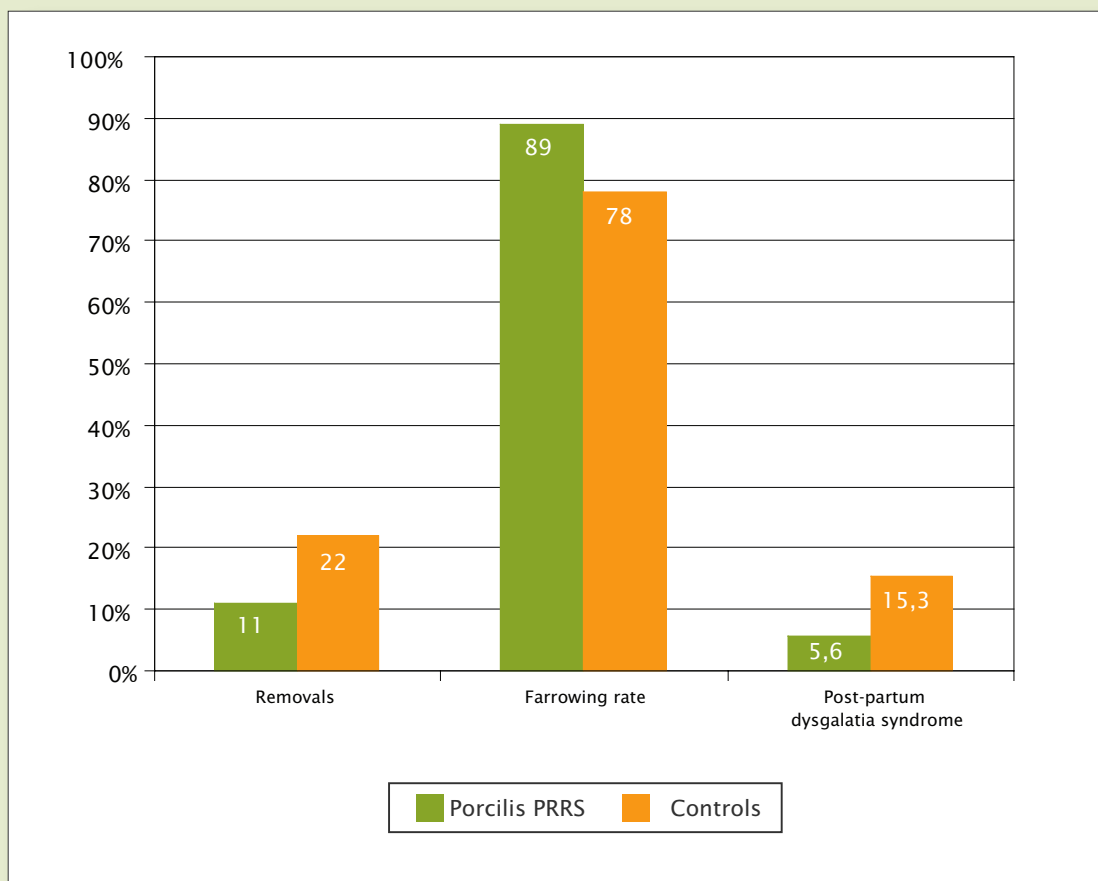
- Group 1: Vaccinated with Porcilis PRRS
- Group 2: Unvaccinated controls

All health and reproductive parameters were recorded between vaccination and the following weaning.

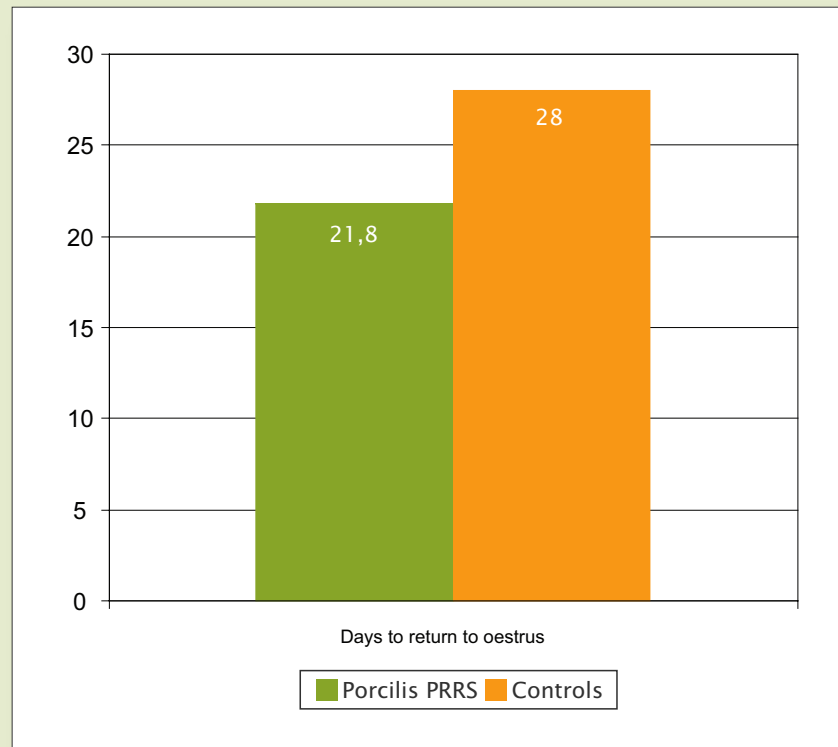
### Results

Several of the recorded parameters were improved after vaccination.

*Comparison of fertility parameters in control and vaccinated sows.*



*Fewer days to return to oestrus in vaccinated sows as compared to the control group. In the control group, the irregular returns to oestrus demonstrate the impact of the disease.*



## Conclusion

*Vaccination of gilts with Porcilis PRRS at 180 days of age and sows 10 days post partum, resulted in improvement in the performance of gilts/sows and their litters<sup>6</sup>.*



# Porcilis<sup>®</sup> PRRS

## Finishing pigs performance after vaccination

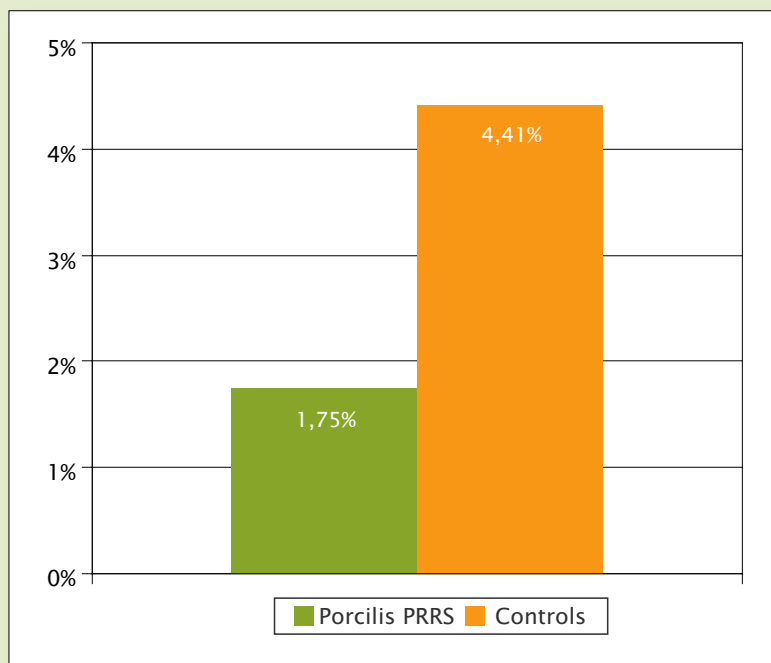
### A field trial in finishing pigs

This field trial was carried out on a 2,500 sow farrow-to-finish herd in which clinical signs of respiratory disease were seen in older growers of 12-14 weeks of age.

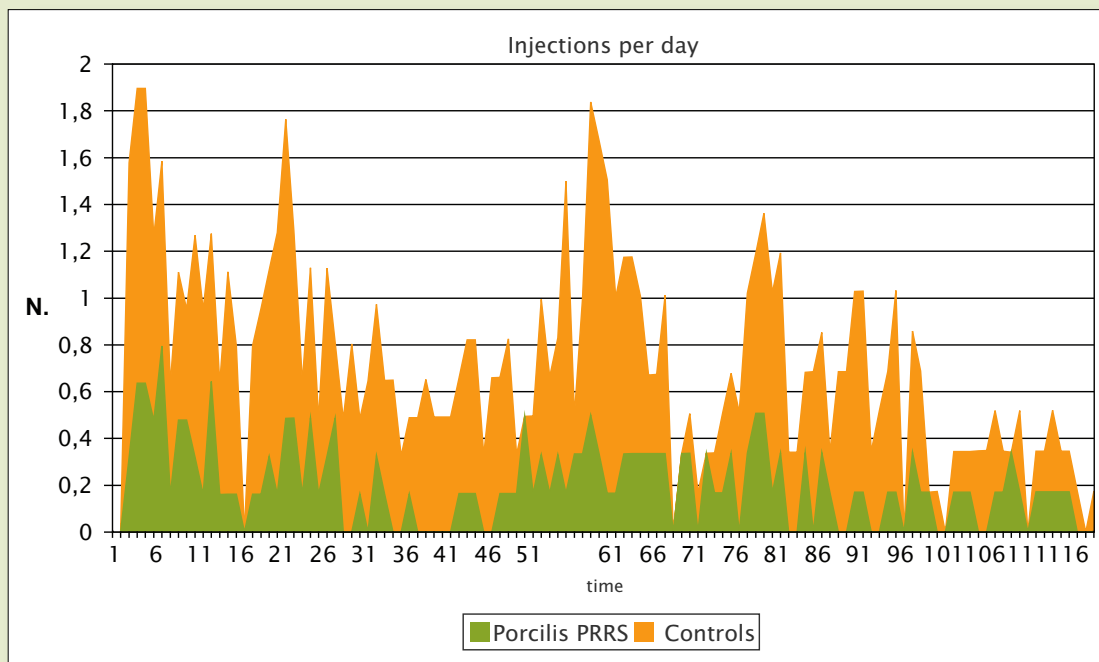
- Group 1: 629 pigs vaccinated with Porcilis PRRS at 6 weeks of age.
- Group 2: 635 unvaccinated pigs.

### Results

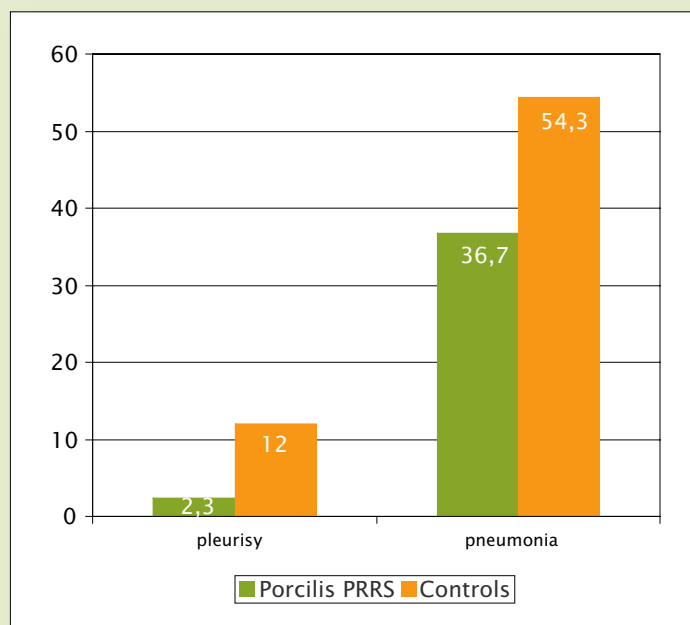
*Reduction of mortality in the vaccinated group (60% reduction)*



Substantial reduction in percentage of animals requiring injectable antibiotic treatment. The percentage of animals treated by injection in vaccinated versus control groups was 23.6 and 59.8 respectively (60% reduction).



Fewer lung lesions due to respiratory disease in vaccinated pigs (Pleurisy: 80% reduction; Pneumonia: 36% reduction)



## Conclusion

In this study there was a significant improvement in the overall performance of the finishing herd<sup>7</sup>.

# Porcilis® PRRS

## protects against economic loss

### Porcilis PRRS

- Reduces the economic loss in finishing pigs
- Improves the reproductive performance in breeding pigs
- The combined strategy of vaccinating both piglets and sows maximizes the positive effect for the whole herd

### Porcilis PRRS for intramuscular and intradermal administration:

- In piglets, a single dose from 2 weeks of age onwards
- In gilts, a single dose 2-4 weeks before mating
- In sows, prior to each pregnancy or applied as a herd vaccination with an interval of 4 months

#### References

1. Pejsak, Veterinary Record 2006
2. Data on file Intervet
3. Drexler, IPVS 2006
4. Labarque, Vaccine 2004
5. Witvliet, IPVS 2006
6. Alexopoulos, Veterinary Microbiology 2005
7. Martelli, 17th IPVS Congress 2002



Visit the Porcilis PRRS website at  
[www.porcilis-prrs.com](http://www.porcilis-prrs.com)

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