

Review of the biosecurity measures, management and vaccination to control of PRRS

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HOW PRRSV enters into the herd

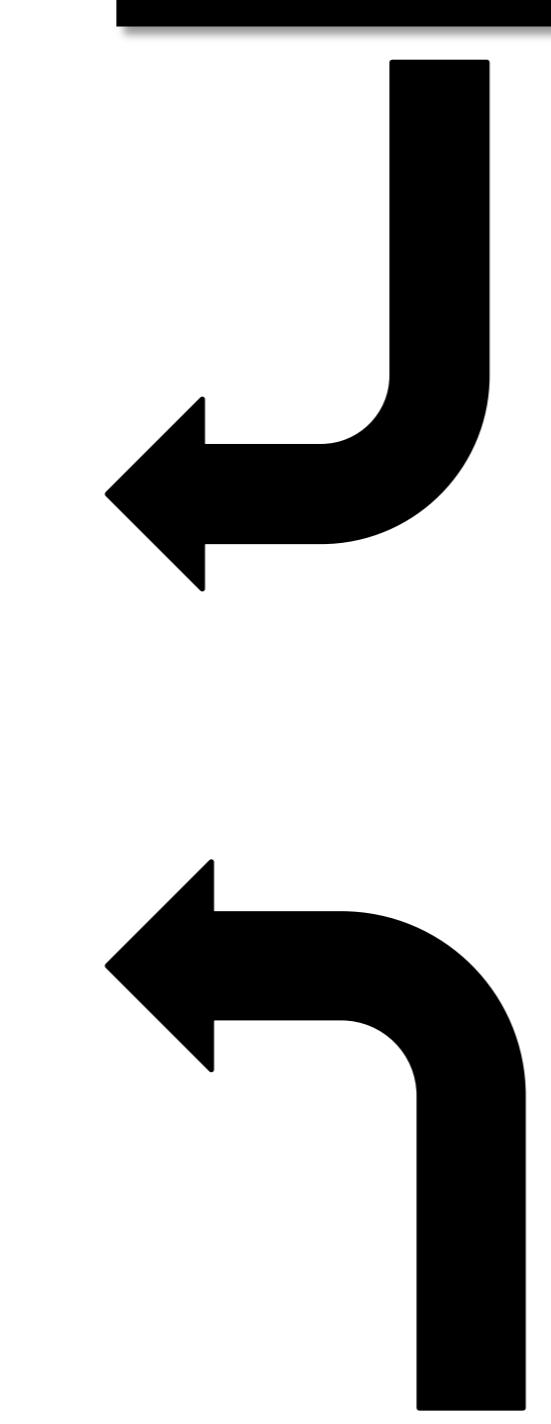
Replacements



Males/Semen



Trucks



Airborne



Visitors,...

EXTERNAL BIOSECURITY

1. (Self-)Replacements

- Origin: self-replacement vs external
- Management: isolation + acclimatization + recuperation.
- Acclimatization by: vaccination, contact infection or deliberate infection.

2. Semen

- Origin: farm males or CIA.
- Intermittent spread in semen: 4-92 dies PI.
- Monitoring.

3. Transport vehicles

- Low temperatures → stability environment.
- Infection $>10^3$ TCID₅₀/mL
- Effective treatments: dry 8 hours or TADD.
- Biosecurity measures

4. Other routes of infection:

- Visitors
- Airborne: special conditions

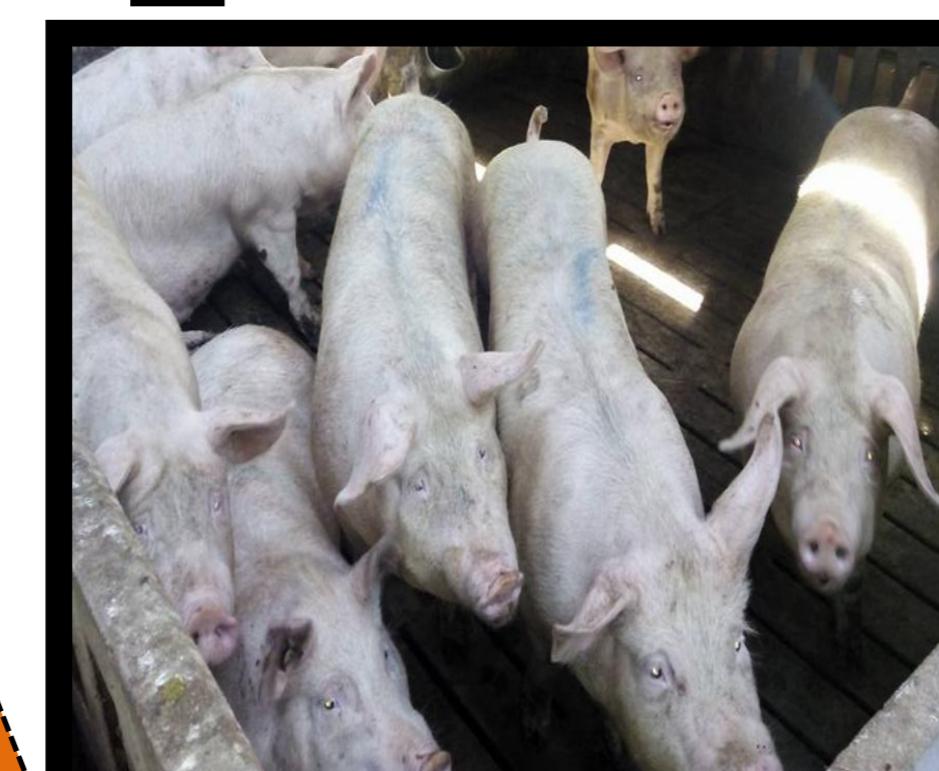
Transmission of PRRSV within the herd



Abortion storm +
Viremic pigs born



Naïve sow/gilts →
INFECTED



Viremic
pigs in
nursery →
SPREAD

Self-replacements →
REINTRODUCTION

More pigs → INFECTED

INTERNAL BIOSECURITY

1. Vaccination

- Partial protection → high variability.
- Two commercial vaccine (Europe): VI and VVA

- Vaccine VI: more safe and less effective.
Repeated doses → good cellular immunity.
Safe for males.

- Vaccine VVA: less safe and more effective.
Formation of neutralizing antibodies →
reduction of viremia and excretion.

Primovaccination (VVA) + re-vaccination (VI)

2. Management

- Maternity → McRebel.
- Facilities and workers → mechanical vectors:

Conclusion

The establishment of biosecurity measures has become essential, both feature with the epidemiology of this virus, as the pathogenesis and multiple transmission routes available through which the virus persists in space and time, not only at farm level but also at regional level.