Porcilis® PRRS and Porcilis® M Hyo can now be mixed

Protect against two top respiratory pathogens with one less injection

Porcilis® PRRS
Less virus, more profit

Porcilis® M Hyo
Fewer lesions, more profit
Two important respiratory vaccines can now be mixed

Porcilis PRRS and Porcilis M Hyo can now be safely mixed together with no loss of efficacy, for more convenient dosing. By reducing the number of injections, there is less stress on the animal. It saves time and labor while providing protection against two of the top three respiratory pathogens. The efficacy and safety of this simultaneous administration are supported by the results from vaccine challenge studies and officially approved within the EU.

Porcilis PRRS

A live vaccine for the immunization of pigs against Porcine Reproductive and Respiratory Syndrome. The vaccine contains PRRS virus strain DV dissolved in Diluvac Forte®.

For gilts and sows:
- A well-proven safe MLV vaccine (6)
- MLV vaccines are much more efficacious than inactivated PRRSV vaccines (17)
- European strain with demonstrated broad protection (12, 2, 13)
- More pigs born alive per litter (14, 1, 15, 9, 22)
- Fewer days to return to estrus (1)

For piglets:
- Reduces mortality (11)
- Improves ADG and FCR
- Substantial reduction in the use of antibiotics (11)

The above will result in a favorable cost-benefit analysis (7).

For programs to produce PRRSV-free progeny by continuously reducing:
- The number of viremic pigs
- The amount and duration of virus circulation
- Virus shedding
- Infection pressure
- Transmission rates

Porcilis PRRS combined with good management makes regional eradication programs feasible (7, 23, 15, 21).
Porcilis M Hyo

An inactivated bacterial vaccine for the immunization of finishing pigs to reduce pulmonary lesions caused by *Mycoplasma hyopneumoniae* infection. Contains whole cell concentrate of *Mycoplasma hyopneumoniae* strain 11 suspended in Diluvac Forte®.

- Porcilis M Hyo improves ADG and FCR resulting in better profitability (4, 20, 16, 3, 19)
- Reduces lung lesions caused by *Mycoplasma hyopneumoniae* (20, 16, 3, 19)
- Counteracts the immunosuppressive effect of *Mycoplasma hyopneumoniae* that increases susceptibility to other PRDC pathogens (10)
- Immunity last at least until 20 weeks after second dose
- Duration of immunity is unaffected by the presence of MDA
- Excellent immunity 2 weeks after second dose
- Onset of immunity is unaffected by the presence of MDA
- Tendency to improve ADG even on farms with low M. hyo challenge (3)

No more labor involved than in reconstituting Porcilis PRRS, but protection against both Porcilis PRRS and Porcilis M Hyo with one less injection.
Porcilis PRRS and Porcilis M Hyo mixture makes your life easier

**PRRS Efficacy Studies**

**Materials and Methods**

<table>
<thead>
<tr>
<th>1st Vaccination</th>
<th>2nd Vaccination</th>
<th>Pigs</th>
<th>Challenge¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-week of age</td>
<td>4-weeks of age</td>
<td>14</td>
<td>PRRSV I.N.</td>
</tr>
<tr>
<td>Porcilis M Hyo</td>
<td>Porcilis M Hyo +</td>
<td></td>
<td>4 weeks p.v.</td>
</tr>
<tr>
<td></td>
<td>Porcilis PRRS</td>
<td></td>
<td>(8 weeks of age)</td>
</tr>
<tr>
<td>Non-vac</td>
<td>Non-vac Control</td>
<td>14</td>
<td>Control</td>
</tr>
</tbody>
</table>

¹3 Weeks observation period after challenge

The excellent efficacy of Porcilis PRRS remains unaffected by mixing it with Porcilis M Hyo and given at 4 weeks of age.

**Good Porcilis PRRS protection after PRRSV challenge when mixed with Porcilis M Hyo**

In this laboratory experiment to check the PRRS efficacy in the Porcilis PRRS and Porcilis M Hyo mixture, Porcilis PRRS was given in such a manner so that the worst case scenario to test the Porcilis PRRS efficacy, was created (5).

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**Fig. 1:** Results - PRRS virus titration from serum

**Fig. 2:** Results - Accumulated quantity of PRRS virus found in serum during the trial period.
**M Hyo Efficacy Studies**

Unlike PRRS field virus (18), the unique safety profile of the European strain contained in Porcilis PRRS and its patented adjuvant, allows the efficacy and safety of Porcilis M Hyo to be unaffected by the mixture.

**Optimal protection with the mixture**

In this laboratory experiment to check the efficacy against M Hyo of the Porcilis PRRS and Porcilis M Hyo mixture, the Porcilis PRRS was given in such a manner that the worst case scenario was created.

The safety of Porcilis PRRS was subject of a study performed by Labarque (6). Efficacy and safety characteristics of Porcilis PRRS were studied. It was concluded that even though the vaccine virus was recovered from BAL fluids in rather large quantities, the total number of mononuclear BAL cells remained constant after vaccination. This differs from an infection with wild-type PRRSV strains, which is characterized by a massive influx of monocytes into the lungs (6). These findings demonstrate that the vaccine virus does not induce the attraction of inflammatory cells into the lungs, which may contribute to its safety. Martelli (13) reports the underlying immunological processes induced by Porcilis PRRS and Le Roith (8) reports the way in which a different MLV PRRS vaccine (derived from a type II PRRS field isolate), as well as field strains, negatively affect the immune response to another vaccine (M. hyo).

**Porcilis PRRS and Porcilis M Hyo vaccination schedule:**

<table>
<thead>
<tr>
<th>Porcilis M Hyo</th>
<th>Porcilis PRRS + Porcilis M Hyo Mixed</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
<td>2nd</td>
</tr>
<tr>
<td>1 w</td>
<td>2 ws</td>
</tr>
<tr>
<td></td>
<td>3 ws</td>
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<tr>
<td></td>
<td>4 ws</td>
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<td></td>
<td>5 ws</td>
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</tbody>
</table>

weeks of age

Simple, straightforward and convenient mixing
Mixing of Porcilis M Hyo and Porcilis PRRS

“Good mixture, fewer injections, less work and great performance”.

**Safe convenient and effective:**
- New strategy to control respiratory disease in pigs
- Easy way to save time and labor
- Adjuvanted with patented Diluvac Forte
  - Prolonged and enhanced immune response
  - No tissue damage at injection site
  - Ease of use, with no foaming
Instructions for Use

• Firstly, ensure that the vials have corresponding doses of Porcilis PRRS and Porcilis M Hyo so that mixing both vaccines produces the required number of 2ml doses.
• Use a sterile needle and syringe to mix the products.
• The mixed product will be in the same vial (the Porcilis M Hyo bottle) as a Ready-to-Use product, but a 2 ml intramuscular dose will vaccinate each pig against both PRRSV and Mycoplasma hyopneumoniae at the same time.
• As simple as using Porcilis PRRS with its regular Diluvac Forte adjuvant.

Step 1
Use a syringe and needle to remove a few mls of vaccine from the Porcilis M Hyo vial.

Step 2
Inject these few mls into the vial containing the freeze-dried Porcilis PRRS.

Step 3
Shake the vial to mix the two products.

Step 4
Remove all the mixture from the vial.

Step 5
Inject the mixture back into the Porcilis M Hyo vial and shake again.

Step 6
Attach the vial to the injector to begin vaccination.

The mixed product is now ready for use. Each intramuscular dose of 2 ml will contain one dose of Porcilis M Hyo and one dose of Porcilis PRRS.

Porcilis PRRS & Porcilis M Hyo mixture
After mixing with Porcilis M Hyo: 1 hour at room temperature
After reconstitution: 3 hours at room temperature.

50 doses Porcilis PRRS + 100 ml Porcilis M Hyo
25 doses Porcilis PRRS + 50 ml Porcilis M Hyo
10 doses Porcilis PRRS + 20 ml Porcilis M Hyo

The vaccine may be reconstituted shortly before vaccination for simultaneous use with Porcilis M Hyo in finishing pigs from 4 weeks of age onwards, which demonstrates that this vaccine can be mixed with Porcilis M Hyo.

The vaccine may be reconstituted shortly before vaccination for simultaneous use with Porcilis M Hyo in finishing pigs from 4 weeks of age and the following instructions should be followed:

10 doses Porcilis PRRS + 20 ml Porcilis M Hyo
25 doses Porcilis PRRS + 50 ml Porcilis M Hyo
100 doses Porcilis PRRS + 200 ml Porcilis M Hyo

A single dose (2 ml) of Porcilis PRRS mixed with Porcilis M Hyo is given intramuscularly in the neck.

Vaccination scheme:
Dosage: Intramuscular injection of 2 ml in the neck behind the ear.
Use sterile syringes and needles.

Special precautions for use
None.

Pharmacological precautions
Store at 2-8°C. Do not freeze.

EU approval for the simultaneous use with Porcilis M Hyo
Interaction with other medicinal products and other forms of interaction
Safety and efficacy data for intramuscular injection are available in finishing pigs from 4 weeks of age onwards, which demonstrate that this vaccine can be mixed with Porcilis M Hyo.

The vaccine may be reconstituted shortly before vaccination for simultaneous use with Porcilis M Hyo in finishing pigs from 4 weeks of age and the following instructions should be followed:

10 doses Porcilis PRRS + 20 ml Porcilis M Hyo
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A single dose (2 ml) of Porcilis PRRS mixed with Porcilis M Hyo is given intramuscularly in the neck.

Shelf life
After reconstitution: 3 hours at room temperature.
After mixing with Porcilis M Hyo: 1 hour at room temperature.

Bibliography


