



# Stop circling and grow... **Fosterera<sup>®</sup> PCV MH**

Scientifically built 'from the ground up', Fosterera<sup>®</sup> PCV MH is a safe and effective bivalent vaccine developed to help protect your pigs from both Porcine Circovirus and *Mycoplasma hyopneumoniae*, with the flexibility of a 1 or 2 dose protocol in 1 bottle.

## To redefine convenience and efficacy, go for a true bivalent vaccine with flexible dosing options.

While monovalent vaccines against PCV2 and *M. hyo* are available, they are either manually mixed or given as two injections at 21 days of age – a procedure that's not so convenient. When convenience and efficacy are your primary considerations, settle for a true ready to use (RTU) bivalent vaccine.

### The problem: mixing of PCV2 and *M. hyo* vaccines is not that simple.

Conventional *M. hyo* vaccine production involves the use of porcine serum which contains PCV2 antibodies. When a PCV2 vaccine is mixed directly with a mycoplasma vaccine, the PCV2 antibodies in the *M. hyo* vaccine bind the PCV2 antigens from the PCV2 vaccine, therefore reducing the potency of the PCV2 vaccine.

### The solution: innovation and technology behind Fosterera® PCV MH

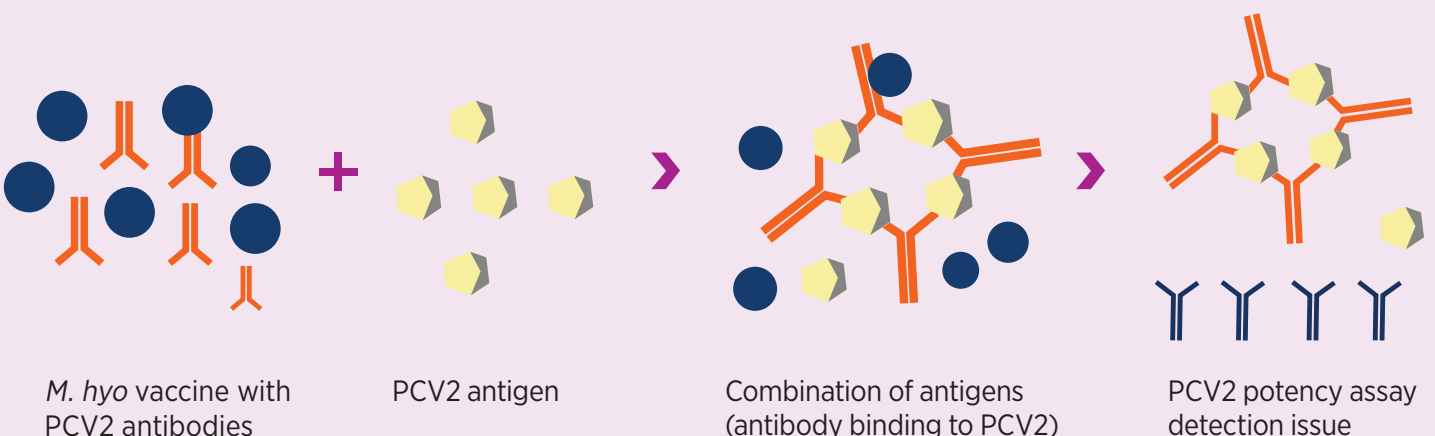
Fosterera® PCV MH is uniquely developed to ensure proper antigen-adjuvant balance, helping to safely and effectively aid in the control of PCVAD and reduce enzootic mycoplasma pneumonia.

## Fosterera® PCV MH combines science and innovation to create an effective formulation against two diseases.

In developing a true combined bivalent vaccine, the challenge is to make the PCV2 and *M. hyo* antigens compatible.

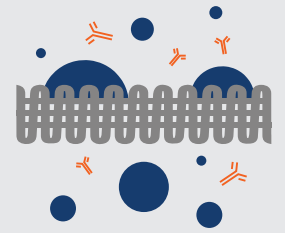
Aspects of human vaccine technology were applied to the Fosterera PCV MH manufacturing process that has revolutionised swine vaccine production.

## The technical challenge with mixing PCV2 and *M. hyo* vaccines:



## 1 Cell-free *M. hyo* fractions

After the conventional *M. hyo* fermentation process, the *M. hyo* vaccine fraction is ultra-filtrated, retaining the important *M. hyo* antigens while removing extraneous proteins and reducing overall biomass.



## 2 Patented antigen composition

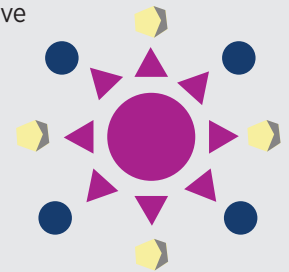
The remaining *M. hyo* fraction undergoes Protein A chromatography to selectively remove PCV2 antibodies and other extraneous antibodies from the *M. hyo* antigen fraction. The resulting product is a mycoplasma vaccine that is PCV2-antigen compatible.

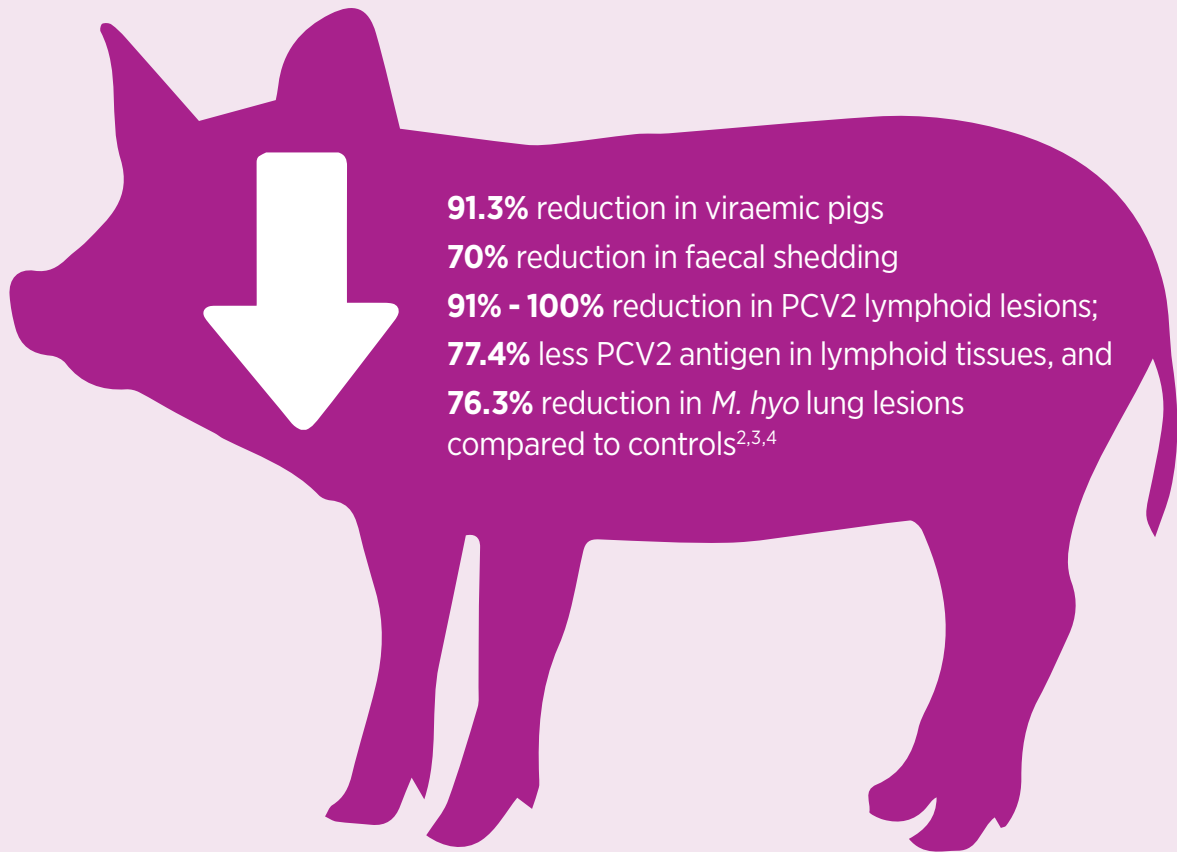


## 3 Finding the perfect adjuvant

Just because two vaccines have the same adjuvant doesn't mean they are compatible. More often, adjuvants effective against *M. hyo* are not as effective against PCV2, and vice versa.

The perfect choice of an adjuvant for bivalent PCV MH should be able to reduce PCV2 viraemia and lymphoid lesions while reducing lung lesions associated with mycoplasmal pneumonia. The solution is MetaStim™, the adjuvant in Fosterera PCV MH.





**91.3%** reduction in viraemic pigs  
**70%** reduction in faecal shedding  
**91% - 100%** reduction in PCV2 lymphoid lesions;  
**77.4%** less PCV2 antigen in lymphoid tissues, and  
**76.3%** reduction in *M. hyo* lung lesions compared to controls<sup>2,3,4</sup>

## Effective and innovative

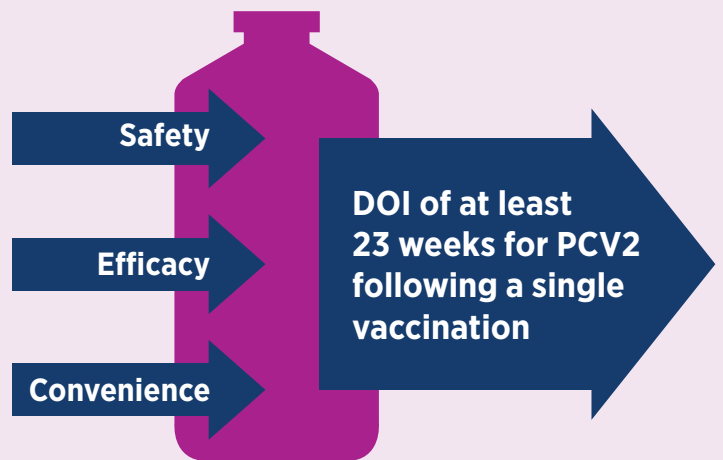
Fostera® PCV MH unique formulation aids in the reduction of PCV2 viraemia, virus shedding and in the control of PCVAD, and reduces enzootic pneumonia caused by *Mycoplasma hyopneumoniae*.

## Immune Responses

Pre-challenge and post-challenge PCV2 antibody titres of pigs vaccinated with Fostera® PCV MH were statistically elevated compared with controls, with Fostera® PCV MH inducing active antibody responses to PCV2 after vaccination, and anamnestic responses to both PCV2 and *M. hyo* challenge.<sup>2,3,4</sup>

## Safe and ready-to-use

Use Fostera® PCV MH with the confidence that safety will not be compromised. The incidence of post vaccination abnormal health events observed were similar between pigs vaccinated with Fostera® PCV MH and controls<sup>1</sup>.



 **Fostera®**  
PCV MH

## Dosage and Administration

### Single Dose:

- One 2 mL dose from 3 weeks of age

### Flexible Dose:

- 2 x 1 mL doses 2 weeks apart from 3 weeks of age
- Ease of administration—no measuring or mixing required

**EFFICACY**

**SAFETY**

**CONVENIENCE**



**Perfect combination, perfect mix!**

**zoetis**<sup>™</sup>

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1. Data on file, Study Report No. B921R-US-12-009, Zoetis Inc. 2. Data on file, Study Report No. B822R-US-12-046, Zoetis Inc.  
3. Data on file, Study Report. No. B823R-US-13-136, Zoetis Inc. 4. Data on file, Study Report No. 12ORBIOPOK01, Zoetis Inc.