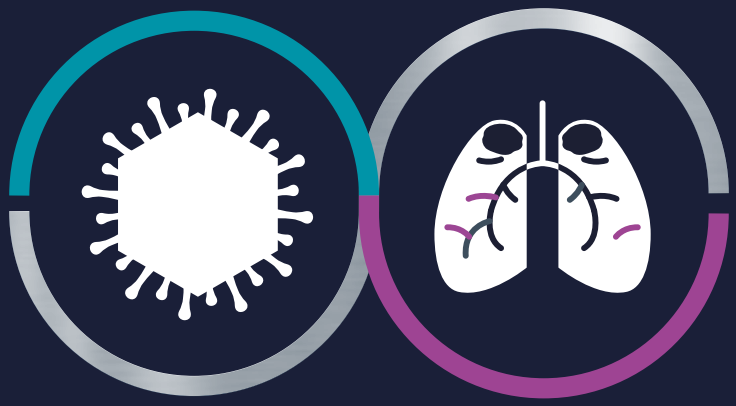
PCV2 & M Hyo prevention





Ceva's Integrated Approach to Piglet Health

CIRBLOC® M Hyo

CIRBLOC®

HYOGEN®

Introduction



Prevention of Porcine circovirus disease (PCVD) and Enzootic pneumonia (EP) is performed in most of swine farms worldwide by vaccination of piglets.

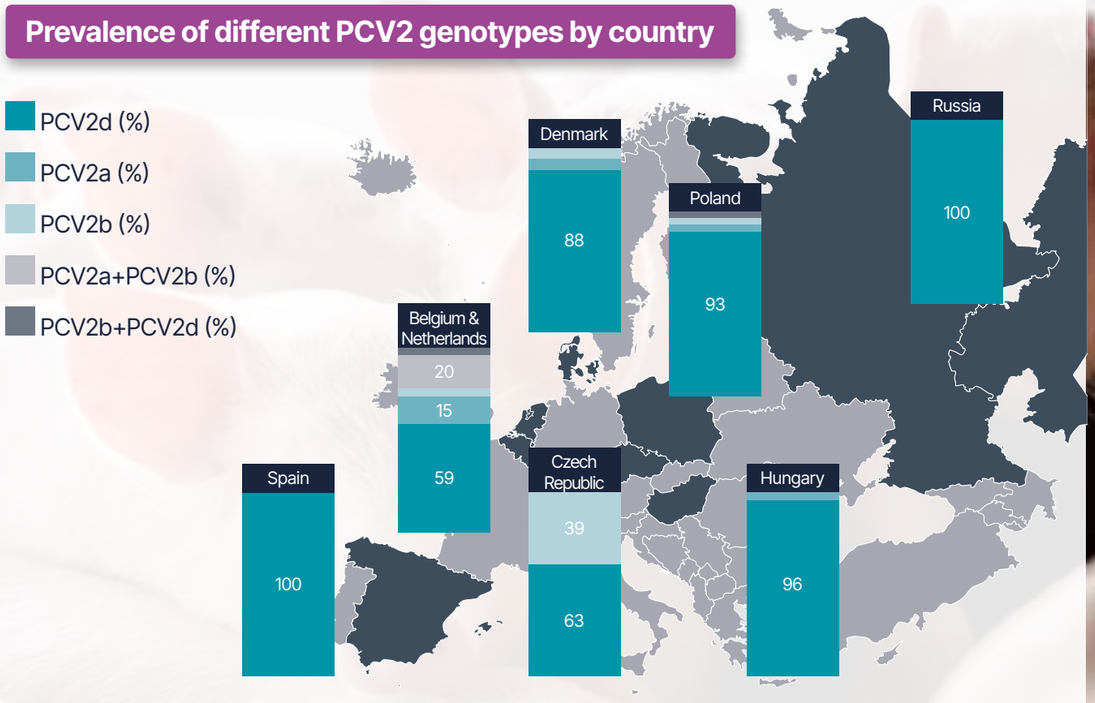
The level of maternal immunity which might interfere with the post-vaccination response decreases usually for PCV2 and *M. hyo* rather fast.

That allows vaccinating piglets against both agents at the same time from 3 weeks of age (WOA), typically around weaning.

PCV2 Genotype Situation in Europe

PCV2 remains a major economic pathogen in swine production. Recent European data (2022–2024) confirm a clear shift in genotype dynamics, **with PCV2d now the dominant strain across all countries (59–100%)**.

Prevalence of different PCV2 genotypes by country



Ref.: Eva De-Jonghe et al., Recent prevalence and distribution of PCV2 genotypes in several European countries, ESPHM 2026

Enzootic Pneumonia Remains a Key Challenge in Europe

Recent European CLP data (2024–2025), based on 384,000 lungs evaluated, confirm that enzootic pneumonia (EP)-like lesions remain highly prevalent, **affecting 31.76% of pigs at slaughter.**

The high frequency of EP lesions reflects persistent *Mycoplasma hyopneumoniae* pressure across production systems.

Distribution of values related to EP-like lesions (2025)

	25% Best	Median	25% Worst
% - Broncho-pneumonic lungs	13.33%	31.76%	48.21%
% - Affected surface in all lungs	0.38%	1.23%	3.03%
% - Affected surface in affected lungs	2.28%	4.35%	7.36%

Comparison of key lung lesion indicators between 2025 and 2024 (median values)

% Broncho-pneumonic lungs		% affected surface in affected lungs	
2024	2025	2024	2025
26.99%	31.76%	4.20%	4.35%

Ref.: F. Colin et al., A Pan-European Assessment of Slaughterhouse Lung Lesions in Pigs: 2025 Survey Findings, ESPHM 2026



Ceva's Integrated Approach to PCV2 and *M. hyo* Prevention for Piglets

ADAPTED SOLUTIONS:
A comprehensive range to meet your needs

Combine both convenience and efficacy



CIRBLOC® MHyo

A single 2 ml dose administered to pigs from 3 weeks of age.

Flexibility with two monovalent vaccines



CIRBLOC® + HYOGEN®

One 2 ml dose of CIRBLOC® administered to pigs from 3 weeks of age.

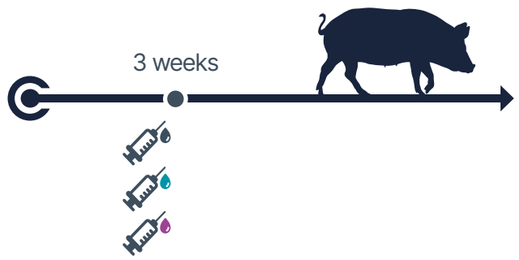
One 2 ml dose of Hyogen® administered to pigs from 3 weeks of age.

M. hyo-free farms: Targeted PCV2 protection



CIRBLOC®

A single 2 ml dose administered to pigs from 3 weeks of age.



Laboratory Diagnostics
Ceva Screen Diagnostic Support

cevaSCREEN
FOCUS ON ANIMAL HEALTH.

Diagnosis of PCV2-SD requires that a pig/group of pigs exhibit:

- Clinical signs: wasting, weight loss, or failure to thrive
- Histologic lesions: depletion of lymphoid organs/tissues and/or lymphohistiocytic to granulomatous inflammation in organs
- PCV2 infection within characteristic lesions

Diagnosis of Enzootic Pneumonia (EP):

- Clinical signs and lesions are indicative, laboratory testing is confirmatory.
- PCR can be performed from laryngeal or nasal swabs, bronchoalveolar lavage fluid (BALF) or oral fluids (OF).

Summary of diagnostic approaches

For more details, please refer to the PCV2/*M. hyo* diagnostic guidelines.

Steps	Rationale	Diagnostics	Technique
1	Establish baseline for herd health monitoring	EP prevalence and severity PCVD record (PCV2 viremia)	CLP/CLP+ PCV2 PCR from blood/serum /OF
	Support successful vaccination and monitor vaccine intake	PCV2 post vaccinal serology	BioChek PCV2 ELISA from serum
2	Identify opportunities to improve herd performance	EP prevalence and severity	CLP
		PCV2 amount in tissues, lesions	Histopathology, IHC, PCR, CLP+
		PCV2 post vaccinal serology	BioChek PCV2 ELISA from serum
		Early PCV2 viremia (birth, weaning)	PCV2 PCR from blood, processing fluids (umbilical chords)
		Early *M. hyo* infection (weaning, early nursery)	*M. hyo* PCR from laryngeal swabs
3	Advanced investigation for complex or persistent health challenges	Differential diagnosis EP - Respiratory panel	Histopathology, multiplex PCR, NGS, PathoSense Dx from lungs, OF
		PCV2-SD	Histopathology, IHC, from lungs, lymph nodes

Monitoring

Monitoring principles

- Overview of PCV2 and *M. hyo* circulation in a herd: cross sectional sampling and qPCR examination.
- For PCV2, blood serum is the most suitable material. **Lungs and saliva can be the alternative.**

Piglets and pigs sampled in age groups

Specimens sampled	Weaning	Mid-nursery	Last week in nursery	Mid- finishing	Late finishing	Gilts	Slaughter
	3-4 woa	8-10 woa*	10-12 woa	16-20 woa	> 20 woa	at mating age	
Blood or serum	15-20	15-20	15-20	15-20	15-20		
Oral fluids (1 rope per pen)		3 pens		3 pens	3 pens	3 pens	
CLP							30/100

*Sera 5-6 weeks after vaccination (8-10 woa) will also be individually tested for PCV2 post-vaccinal seroconversion. The recommended test is PCV2 BioChek ELISA.

Lung Scoring Methodology

Infection with *M. hyo* often appears to have a subclinical course, where the growth performance is reduced.

Pneumonia can be evaluated in a qualitative and quantitative manner. In the Ceva Lung Program, pneumonia is scored based on Madec method (Madec 1982), which has been modified considering the contribution of each lobe to the overall capacity of the lungs.

The results demonstrated that **the change of each 0.1 EP-index point corresponds to 11g of ADG** (Krejci 2022a).

Scoring Methodology

Scoring of EP-like lesions



Score 1



Score 2



Score 3



Score 4

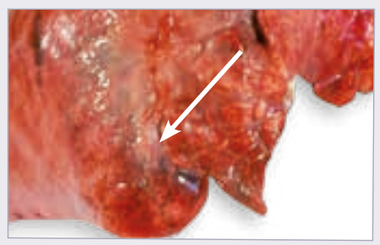
Courtesy of IZSLER Inst. Reggio Emilia, Italy

Surface of the lobe affected	
Score 0	No lesions
Score 1	1-25 %
Score 2	26-50 %
Score 3	51-75 %
Score 4	76-100 %

Quantification of scarring



Score 0



Score 1

Courtesy of Pig Research Centre, Denmark

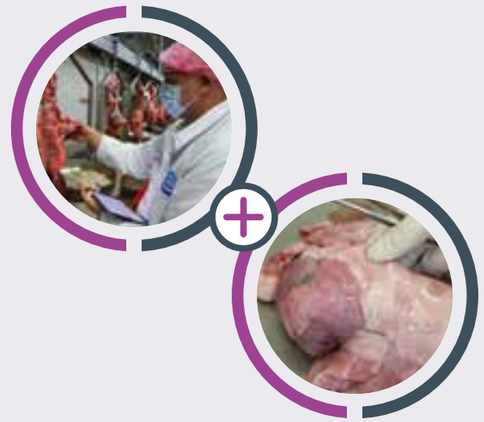
Incidence of fissures	
Score 0	Absence of fissures (scarring)
Score 1	Presence of fissures (scarring)

CLP+ : *Enhancing Ceva Lung Program with Deeper Diagnostic Insights*

CLP+ (Ceva Lung Program Plus) is a **comprehensive diagnostic approach** that combines **pathoanatomical lung examination** on the slaughter line with a **multiplex PCR** to identify **causative key pathogens of Porcine Respiratory Disease Complex** (PRDC).

The main benefits of the CLP+ diagnostic approach are:

1. Improve detection and awareness of PCV2-associated respiratory disease
2. Link lung lesions observed at the slaughterhouse with the presence of the most frequently found respiratory pathogens
3. Empower decision-making for better prevention strategies on farms.



CLP+ Results and Impact, large-scale experience in Europe

The CLP+ approach was applied across 459 swine farms with low to high respiratory problems in four European countries (Germany, the Netherlands, Belgium, and Austria), revealing key insights into respiratory disease patterns:

- PCV2 was detected in **49% of farms**.
- Among those tested further, most prominent genotype found was **PCV2d : 80%**, a genotype which is increasingly recognized for its impact.
- OF can be used as an alternative when entering the slaughterhouse is restricted.

Cvjetkovic et al. , Updated regional assessment in four european countries of prdc pathogens using lung lesion scoring and screening pcr, ipvs 2026

These results demonstrate the value of CLP+ in identifying overlooked infections and driving evidence-based vaccination decisions, particularly in farms with hidden PCV2d circulation.



EASI> Injection quality and digitalization for your farm at hand

Easi to use and long lasting sessions

- Ready-to-go mode. 3 clicks to start:
  Turn-on → Product selection → Priming → Inject
- Battery operated with a capacity over 1500 cycles.
- Compatible with any medical product on the market.



Injection quality

- Intramuscular injection without backflow
- Alert for the operator when the injection is not correct

Automatic cleaning

- Built-in automatic cleaning system for hygiene and convenience



Powerful insights

- EASI device + Ceva software:
  injector manager and PHP
  (Precision Health Program)
- Enables data-driven decisions for your farm

Automatic data collection and digitalization

- Records session data automatically
- Data synchronized to the cloud via Wi-Fi

TROLLEY

Trolley for maximum operator comfort and animal welfare

When combined with Ceva Trolley and/or fix station:

- Motorized syringe to reduce risk of musculoskeletal disorder
- Hands-Free operation to increase comfort and efficiency
- Improved Animal welfare
- Trolley adaptable for daily care routines



Contact your Ceva representative today

and discover how EASI can elevate your herd's health, your team's wellbeing, and your operation's efficiency.



Ceva P.I.G Program™

Ceva's Solution to help farmers and vets reaching maximum quality of vaccination at farm

P.I.G. program is a 4-step program intended to identify critical factors likely to exert an influence at the moment of vaccination, in order to minimize vaccine failures in collaboration with farm personnel, and therefore to contribute to correct piglet vaccination.



1. Education and know-how about vaccination in the farm.

- Awareness of vaccination importance
- Pre-evaluation of farm situation analysis

2. Farm visit: Audit and on-site training.

- Evaluation of good vaccination practices
- Training to guarantee quality of vaccinatior
- Digital data collection

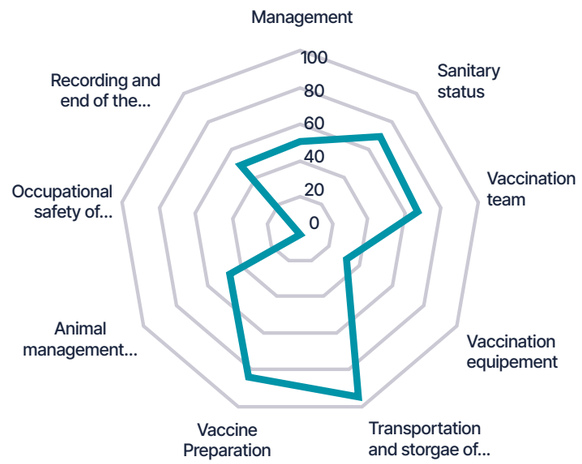


3. Quality evaluation, vaccination index

- Vaccination Index is an objective measurement of vaccination quality at farm level
- Definition of action plan for improvement areas and increase vaccination quality

Vaccination index
62%

Vaccination IMPACT



4. Monitoring

Follow up actions taken at the farm and definition of next steps with the objective of achieve maximum quality of vaccination

Worldwide experience supporting better vaccination quality

Contact your Ceva representative today
and discover how P.I.G program can help you to improve your Vaccination Index



CIRBLOC® M Hyo



CIRBLOC®



HYOGEN®

Cirbloc® M Hyo: emulsion for injection for pigs. One dose (2 ml) contains: Active substances: Inactivated bacterin of *Mycoplasma hyopneumoniae* strain 2940 min. 184 AU. Recombinant baculo-PCV2 virus VLP antigen (ORF2 capsid protein) min. 19.6 µg. Adjuvant: Light liquid paraffin 277 µl. Indications for use: For the active immunisation of pigs to reduce viraemia, virus load in lungs and lymphoid tissues, virus shedding caused by porcine circovirus type 2 (PCV2) infection, and bacterial load and severity of lung lesions caused by *Mycoplasma hyopneumoniae* infection, and under field conditions, to reduce the loss in body weight gain. Onset of immunity: PCV2: 2 weeks after vaccination. *M. hyopneumoniae*: 3 weeks after vaccination. Duration of immunity: PCV2: 23 weeks after vaccination. *M. hyopneumoniae*: 23 weeks after vaccination. Vaccinate pigs by the intramuscular route in the neck. A single dose of 2 ml in pigs from 3 weeks of age. Allow it to reach room temperature (15 °C – 25 °C). Shake well before use. Apply usual aseptic procedures. Withdrawal period: Zero days. Store and transport refrigerated (2 °C – 8 °C).Do not freeze. Shelf life after first opening the container: 10 hours.

Cirbloc®: emulsion for injection for pigs. One dose (2 ml) contains: Recombinant baculo-PCV2 virus VLP antigen (ORF2 capsid protein) min. 19.6 µg. Adjuvant: Light liquid paraffin 277 µl. Indications for use: For the active immunisation of pigs to reduce viraemia, virus load in lungs and lymphoid tissues, virus shedding caused by porcine circovirus type 2 (PCV2) infection, and under field conditions, to reduce the loss in body weight gain. Onset of immunity: PCV2: 2 weeks after vaccination. Duration of immunity: PCV2: 23 weeks after vaccination. Vaccinate pigs by the intramuscular route in the neck. A single dose of 2 ml in pigs from 3 weeks of age. Allow it to reach room temperature (15 °C – 25 °C). Shake well before use. Apply usual aseptic procedures. Withdrawal period: Zero days. Store and transport refrigerated (2 °C – 8 °C).Do not freeze. Shelf life after first opening the container: 10 hours.

Hyogen®: emulsion for injection for pigs. Per dose. Active substance: Inactivated *Mycoplasma hyopneumoniae* 2940 strain: min. 5.5 EU. Adjuvants: Light liquid paraffin187 µl. *Escherichia coli* J5 LPS is max 38000 Endotoxin unit. Excipient: Thiomersal 50 µg. Indications: For the active immunization of fattening pigs from 3 weeks of age to reduce the occurrence and severity of lung lesions caused by *Mycoplasma hyopneumoniae* infection.Store and transport refrigerated (2 °C - 8 °C). Do not freeze. Withdrawal period: Zero days.

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