

# CIRCOVIRUS

## Factsheet



**Porcine Circovirus Disease (PCVD) is a viral disease which occurs in pigs and is caused by Porcine Circovirus Type 2 (PCV2). PCVD has been recognised as one of the most economically damaging pig diseases in the world.**

### Characteristics

Not all pigs develop clinical signs of the disease, but most are infected with PCV2. Pigs affected by PCVD may experience increased mortality, poor growth and weight loss, severe thinning and weakness between the ages of 5-14 weeks. In addition, they can develop enlarged lymph nodes, skin rashes, breathing difficulties, jaundice, fever, stomach ulcers, diarrhoea or even suddenly die. PCV2 has also been identified as the causal agent of abortions and reproductive disorders.

### Societal impact

#### ■ Animal health and welfare

PCVD appeared in the mid-nineties and mortality rates in young pigs initially were up to 30%. Apart from the high initial death rates, it also left farmers trying to manage the effects on the remaining herd through enhanced husbandry and farm management. As immunity built up in the herds, depending on the severity of the infection, the majority of pigs recovered.

Most pigs suffered from a reduced growth rate. Additionally, those with high levels of infection had severely damaged immune systems and either died or acquired all sorts of viral and bacterial infections. They did not respond to antimicrobial therapy and often died. These effects had a significant impact on the economics of the farms and contributed to the closing of a substantial number of farms.

#### ■ Economic impact

PCVD has been recognised as one of the most economically damaging pig diseases in the world.

According to national epidemic mortality figures in the United Kingdom over a 10-year period, the long-term impact of PCVD was assessed in Europe as costing approximately **EUR 5.76 billion** - a high figure for a market producing 240 million pigs per year. This does not take into account lost production from reduced weight gain and should therefore be considered a conservative figure.

### Vaccines and vaccination

The animal health industry has developed and marketed vaccines to prevent and control Circovirus in pigs. Veterinarians and farmers had been looking for a real solution for years, so the fast development of PCV2 vaccines and their introduction into the North American market in 2006 and subsequently in Europe and Asia were well received by them.

As the cause of the disease is a virus, **sow and/or piglet vaccination is the only effective way to control the disease.** Sow vaccination protects the piglet, whose immune system could otherwise be compromised, reduces virus pressure in the whole herd and prevents reproductive disorders.

The introduction of vaccines means that mortality associated with PCV2 infection has fallen dramatically, back to levels not seen since before the PCV2 epidemic started. Additionally, with PCV2 vaccination the general health situation on pig farms has improved.

The animal health industry has helped the pig industry by promoting animal health through the development of PCV2 vaccines to prevent PCVD and by promoting good farming practices and animal welfare.

**Useful links:**

- Pig Progress:  
[www.pigprogress.net](http://www.pigprogress.net)
- Iowa State University:  
<http://vetmed.iastate.edu/vdpam/new-vdpam-employees/food-supply-veterinary-medicine/swine/swine-diseases/circovirus>