

PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME

BACKGROUND

Porcine reproductive and respiratory syndrome or PRRS is an enveloped RNA virus of the family Arteriviridae. The virus was first reported in the United States in 1987 and by the end of 1992 the disease was reported in Canada, Great Britain, and several European countries. Since then, the virus has been found throughout North America, Asia, South America, Africa, and Europe. PRRS is the most economically important disease in swine production worldwide. In Canada, PRRS contributes to an annual loss of between \$116 and \$219 million per year.



WHY IS THIS IMPORTANT TO MANITOBA?

Though PRRS is not a new disease, it remains a concern for Canadian producers because it is highly mutagenic, easily transmissible, persists for long periods in chronically infected animals and can cause morbidity and mortality in all stages of swine production. In recent years, incidences of new variants of PRRS in China and the United States have caused devastating production and economic loss.

WHAT IS THE IMPACT?

The impact of PRRS varies depending on the strain. A “regular PRRS” or “PRRS lite” is much less devastating than a virulent PRRS.

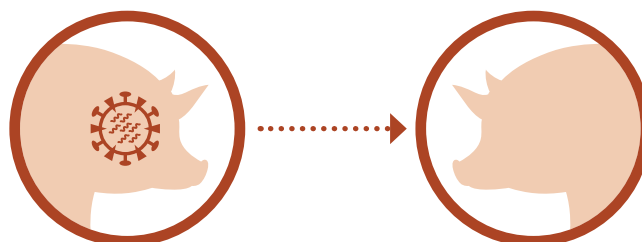
	Regular PRRS	Virulent PRRS
Piglets born alive	↓ 15%	↓ 70%
Sow mortality	↑ 1–4%	↑ 10–20%
Piglet mortality	↑ 20%	↑ up to 100%
Nursery mortality	↑ 7%	↑ 50%
Finisher mortality	↑ 11%	↑ 20%
Increased abortions and mummification		✓
Slow growth - 1lb/day ADG		✓

TRANSMISSION

Direct transmission can occur when pigs are exposed to respiratory or mammary secretions, saliva, urine, semen, and/or feces of infected pigs. PRRS can also enter through breaks in the skin like bites, cuts, or scrapes.

Indirect transmission can occur through exposure to contaminated needles, clothing/footwear, piglet processing equipment, and/or transport trailers.

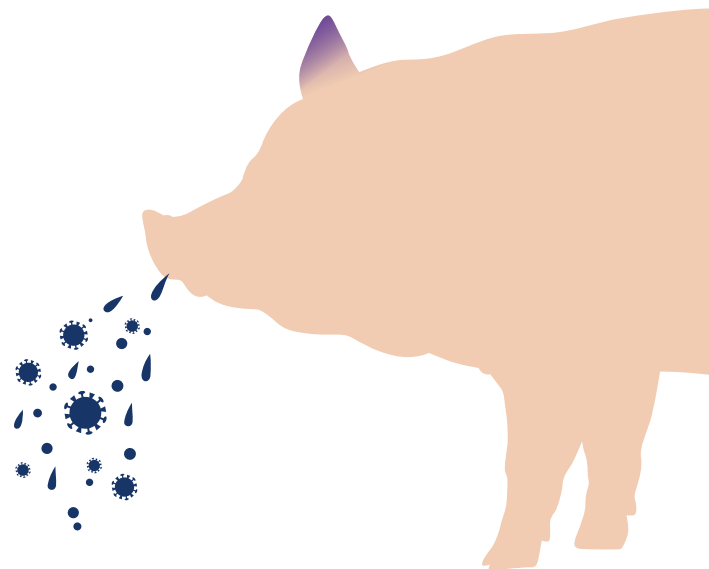
After exposure to PRRS, pigs will start to develop symptoms within 3–7 days. However, infected pigs can shed the virus before clinical signs appear.



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CLINICAL SIGNS

	Breeding Pigs	Growing Pigs
Fever	✓	✓
Lethargy	✓	✓
Depression	✓	✓
Respiratory disease i.e., coughing, sneezing, difficulty breathing	✓	✓
Vomiting	✓	✓
Off-feed	✓	✓
Reproductive failure i.e., abortions, stillborns, or mummies	✓	
Blue ears	✓	✓



Virulent PRRS

A virulent strain of PRRS has the same clinical signs as a regular PRRS strain but can be characterized by a higher severity. This includes high fever, increased stillborns or abortions, severe respiratory distress, neurological signs, and high mortality in both breeding and growing pigs.

TREATMENT & ELIMINATION

There is no treatment for PRRS. However, antibiotics may be used to treat secondary bacterial infections.

PRRS is susceptible to disinfectants containing phenol, formaldehyde, bleach, and quaternary ammonium compounds. Be sure to follow all label directions for concentration and contact time.

Work with your herd veterinarian to determine the best path forward. Strategies for PRRS management will vary depending on the strain.



IF YOU SUSPECT PRRS WHAT SHOULD YOU DO?



Contact your herd veterinarian



Enhance biosecurity and biocontainment



Do not ship pigs



Communicate pigs' health status with transporters and processors; schedule deliveries to reduce risk