

# Progressive Atrophic rhinitis

resulting in

Atrophic rhinitis is caused by the bacteria *Pasteurella multocida* and *Bordetella bronchiseptica* affects the upper airways and nasal passages of piglets

The disease has two presentations:

- Mild and non-progressive: the infection or irritation occurs during a period of **2 to 3 weeks**.
- Progressive atrophic rhinitis (PAR): strains of *Pasteurella multocida* type D and *Bordetella bronchiseptica* produce toxins that **damage the nasal tissue in lactating piglets and growing pigs**.



Sneezing



Discharge



Distortion or atrophy of the snout  
(It can make pigs more vulnerable to other respiratory tract infections like bronchitis and pneumonia)

<sup>1</sup> Atrophic rhinitis. Diseases manual. www.pig333.com



## Economic impact

Atrophic rhinitis can result in reduced growth, meaning **infected pigs take longer to reach slaughter**.

An estimated **5% decrease in growth** during fattening adds approximately **\$1.39 of production costs per pig** slaughtered.<sup>2</sup>

<sup>2</sup> Riising, H.J. et al. Protection of piglets against Atrophic Rhinitis by vaccinating the sow with a vaccine against *P. multocida* and *B. bronchiseptica*. The Veterinary Record (2002)



## Prevalence

**PAR is less prevalent than in the past.** However, lapses in vaccination and control programs mean that outbreaks do still occur.



## Diagnosis

This is based on clinical signs, such as:



Deviated snouts: graded from 0 (perfect) to 5 (severe loss of tissue)\*



Sneezing



Nasal discharge (swabs for lab. culture)



Difficulty eating and reduced daily gain



Evaluation of nasal turbinates and septum through slaughterhouse checks and on-farm necropsies.

\*Is only when grades 4 and 5 are present that PAR will be suspected.<sup>3</sup>

<sup>3</sup> Atrophic Rhinitis (AR). Disease Guide. The Pig Site.



## Treatment and prevention

- Vaccination of adult animals (sows): highly effective.
- Ensure adequate and early intake of colostrum by piglets.
- Antibacterial drugs to sows (particularly before farrowing) as well as piglets and newly weaned pigs: it can also prevent the infection from spreading.<sup>2</sup>
- Improved management (improved ventilation, avoiding high stocking levels and using less dusty feed): it can also help.
- Intensive vaccination with a potent vaccine and a test and remove protocol are ideal tools for an eradication programme.

<sup>2</sup> Riising, H.J. et al. Protection of piglets against Atrophic Rhinitis by vaccinating the sow with a vaccine against *P. multocida* and *B. bronchiseptica*. The Veterinary Record (2002)