

NADIS disease bulletins are written specifically for farmers, to increase awareness of prevalent conditions and promote disease prevention and control, in order to benefit animal health and welfare.  
Farmers are advised to discuss their individual farm circumstances with their veterinary surgeon.

## **Post Weaning Respiratory Disease**

Porcine Reproductive and Respiratory Syndrome (PRRS or Blue Ear) appeared in the UK in 1991 and within 12 months of its arrival, respiratory disease affecting pigs in the immediate post weaning period (i.e. 7-10 days after 25 day weaning) started to become a serious problem for some producers. Investigations have shown that the problem is usually the result of viral infection (PRRS virus and Swine Influenza either separately or together most commonly) with secondary bacterial infection with *Mycoplasma hyopneumoniae*, *Haemophilus parasuis*, *Pasteurella* and *Streptococci* common.

### **Clinical Signs**

Fading, with coughing and sneezing and poor appetite are the major presenting signs, usually affecting pigs approximately 4 ½ - 5 weeks of age, 7-10 days after weaning. In some cases, the coughing and/or sneezing can be detected earlier, although fading is not usually evident until after weaning.

An episode of this problem will often occur in the wake of a PRRS wave of disease affecting sows and piglets in the farrowing area, suggesting that the major trigger factor may be pigs born with PRRS virus already in them or pigs become infected during the suckling period. The coughing and sneezing will often be evident in most pigs in a group and the overall effect can be to reduce growth in the 4 weeks after weaning by 25% or more. In severe cases, 10% of pigs will fade and many of these will die, often with secondary disease such as Glassers Disease.

### **Diagnosis**

At post mortem, in early sacrificed cases, there may be little to see in the lungs, although histopathology will show evidence of lung damage indicative of viral infection. Where flu and PRRS are involved, the damage is complex and a diagnosis may be assisted by a combination of virus isolation and cross sectional blood sampling to show that pigs have become exposed to the virus at the target time. (Cross sectional bleeding involves collecting a number of samples from groups of pigs at different ages e.g. 2 weeks, 4 weeks, 6 weeks and 8 weeks and plotting the reactions).

### **Treatment**

Once the problem is occurring, treatment is very difficult and frequently unsuccessful. Use of broad spectrum antibiotics is worthwhile to prevent secondary infection and every attempt must be made to encourage piglets to eat and drink.

The use of porridge presented twice daily.  $\pm$  electrolytes from weaning can help reduce the severity of the cases by at least maintaining feed intake post weaning. However, it is the long term control and prevention which requires application.

### **Control**

All efforts are needed to:-

- 1) Reduce the exposure of piglets to infection.

## 2) Reduce recycling of disease.

As with all respiratory diseases, stocking rates, group sizes, air quality and age spread are all important in influencing the level of problems.

By reducing stocking rates, provided there is no chilling, competition for feed and water will be reduced and pigs will cope better at weaning. Stuffy, humid air with high contamination levels will favour replication and spread of both the primary viruses and the secondary bacteria. Older pigs tend to act as a source of infection for younger ones and any policy where different age groups are in contact or older pigs are mixed back with younger pigs (particularly if they have not grown well) will exacerbate the disease and maintain a vicious circle. In outdoor herds, it is now common to split weaners into weekly blocks rather than grouping 4 or 8 weeks worth of kennels together.

There is some evidence to suggest that PRRS infection of a proportion of the pigs at or soon after birth is the key to this syndrome. Experience in the last few months, where gilt introduction into the herds has been upset by the Foot and Mouth Disease restrictions, suggests that, in some cases at least, it is the gilts or their litters which act as the major source of disease in the farrowing area and after weaning.

The key to control seems to be stabilising the breeding herd with respect to PRRS and, in particular, ensuring that gilts are solidly immune to infection by the time they are served. If this is not the case, there is always a risk that the gilts become infected in mid to late pregnancy, risking either transplacental infection of the litter or infection of her own or neighbouring litters after farrowing.

The recent launch of inactivated (i.e. safe) PRRS vaccines for use in the breeding herd is a major step in encouraging stability in the breeding herd and reducing “the gilt problem” and early indications from Europe, where the vaccines have been available for more than 12 months, suggests that an effective control measure may be with us.

Where the disease is complicated by Swine Influenza virus, control is achieved by management and prevention of recycling between batches. In general, Swine Influenza viruses (of which there are now many strains) are less persistent within a breeding population and, with time, do tend to burn themselves out. PRRS control must be the priority.

*Mark White BVSc DPM MRCVS*

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