

## Pig Fact Sheet 8

### E.COLI SCOURS IN NEWBORN PIGLETS

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Diarrhoea (scour) is a common cause of loss in piglets soon after birth. This is because their small size makes them particularly vulnerable to dehydration and so relatively small losses of fluid can have large consequences. There are a number of diseases that can cause scour in piglets. E.coli infections are a large contributor to piglet losses whilst being one of the more readily controlled agents of disease.

#### **What causes E.coli scours?**

E.coli is a bacterium of which there are many different strains. It is an organism that normally resides in the gut of pigs, and indeed other animals, without causing disease. This is because most strains of E.coli are harmless. This said there are some strains that can be extremely harmful to young piglets by sticking to the gut wall and allowing fluid loss into the intestines. The result is scour.



*There are three main sources of infection to the new born piglet:*

1. The sow – as farrowing approaches, the sow excretes a higher volume of E.coli organisms
2. Direct exposure from other previously infected piglets
3. Indirect exposure as E.coli exists within the environment

#### **What might be seen?**

E.coli infections tend to present as profuse, watery diarrhoea in piglets of 3 days of age. It is a problem that usually affects all piglets within a litter and sideways spread from the first litter affected to other naïve litters can often be seen.

Piglets that have been chronically infected show a loss of condition, hairy coats and they often have faecal staining over their back end and down their thighs. Dehydration can quickly lead to death and sometimes sudden death is noted before any diarrhoea is seen.

We use a combination of post mortem results and laboratory diagnostics e.g. gut content samples / faecal swabs to confirm the presence of E.coli. These results then form the basis of our choice of treatment.

#### **How should infected animals be treated?**

Individual scouring animals should be given oral antibiotic treatment with a suitable drug based on lab sampling. Injectable antibiotics will give some effect but oral dosing results in a quicker action. In an outbreak situation, it may be necessary to strategically medicate all piglets at birth with a suitable oral preparation.

It is essential to provide easily accessible drinking water to affected litters as dehydration quickly ensues. Badly affected animals may need individual electrolyte supplements in the water via syringe.

Any piglets that are unable to stand or become comatose should be humanely destroyed. Any contributing environmental issues such as temperature /draughts /wet lying conditions should be addressed.

## What can we do to prevent / control E.coli?

*The principles of control of E.coli are three fold:*

- 1.To decrease any spread of infection
- 2.To reduce the E.coli burden on the unit
- 3.To improve the immunity of the sows and piglets to the existing E.coli problem

To decrease the spread of infection, attention should be paid to hygiene between litters and, if farrowing indoors, between rooms. Foot dips can be used to reduce contamination and vermin should be strictly controlled. In the face of an outbreak, fostering practices should be ceased in order to prevent further dissemination of the pathogen.



Sow immunity can be improved through the use of vaccination before farrowing. Vaccinating the sow also helps to improve the immunity of the piglet as the sow passes antibodies that protect against E.coli to the piglet through the colostrum (first milk).

There are several different vaccines available e.g. Neocolipor, Porcol 5, Gletvax 6 etc. The choice of vaccine may depend on the E.coli status of your farm and should be discussed with your unit vet.