

Diagnosis

- History- death in healthy recently weaned pigs along with swollen eyelids/face.
- Laboratory isolation.

Treatment

Treatment in pigs showing signs is ineffective. Prophylactic treatment of the rest of the litter with antibiotics in feed or water is done.

Prevention and control

- Provision of creep feed to piglets and up to 2 weeks post weaning.
- Provision of high fibre diet to pigs soon after weaning and re-introduce high protein diet gradually over 3-5 days.
- Avoid sudden dietary changes and reduce amount of feed to weaned pigs.
- Hygiene within the units to minimize environmental contamination.
- Strategic introduction of antibiotics one week before weaning and at least 2 weeks post weaning.
- Drinking water acidification to raise its pH to minimize bacterial multiplication in the gastro intestinal tract of the pigs.
- Vaccination of sows and gilts 6-8 weeks before farrowing and a booster 4 weeks to farrowing. (e.g. porcilis[®] coliclos).



Compiled by: Mutisya W., Njambi.E., Mungube E.O.,
Wanyona.S., Adongo A.O. and Mariita.R

Design and Layout by: Odipo. S

For further information contact:

KALRO Dairy Research Institute, Muguga

P.O. Box 25-20117, Naivasha

Email: Director.dri@kalro.org

Telephone: 020 2390930

Editorial and Publication coordinated by
Knowledge, Information and Outreach Unit

KCSAP Brochure No.:



PREVENTION AND CONTROL OF GUT EDEMA IN PIGS FOR IMPROVED PRODUCTIVITY



PREVENTION AND CONTROL OF GUT EDEMA IN PIGS FOR IMPROVED PRODUCTIVITY



Introduction

Edema disease often referred to as gut oedema/bowel edema is an important disease in rapidly growing weaner pigs (4-12 weeks) caused by the haemolytic type *Escherichia coli* (E.coli) bacteria. The bacteria are a normal flora within the gastro intestinal tract of healthy pigs and disease occurs when there are conditions favouring its rapid multiplication and toxin production.

Outbreaks can affect up to 50% of the pigs in a litter with large and fast-growing pigs being most susceptible. The disease occurs 1-2 weeks post weaning and is fatal causing up to 90% deaths.

Risk factors of gut edema

- Post weaning stress
- Regrouping after weaning
- Pen change

- Diets high in proteins
- Uncontrolled dietary changes,

Transmission

Transmission of the disease occurs through ingestion of the bacteria in contaminated environments and sows. Other transmission occurs between pen mates shedding the toxin producing bacteria.

Clinical presentation

- Sudden death of one or more piglets in the affected litter.
- Reduced feed intake and occasionally slight diarrhoea.
- Swollen face, eyelids, puffy red eyes and open mouth breathing (laboured breathing).



A recumbent pig with swollen eyelids and open mouth breathing (laboured breathing)

- Drunken gait, inability to stand or walk and death within 24 hours.
- Loss of the normal vocalization (pigs don't squeal when touched) due to swelling of larynx.



A recumbent pig (left) and another with swollen eyelids (right) all suffering from edema disease.

Post-mortem findings

- Stomach full of feed and normal faeces
- Swollen eyelids and puffy red eyes
- Pale skeletal muscles



Post-mortem of a pig that had died of edema disease with stomach full of feed