



LAWSONIA

AN INVISIBLE ENEMY

LAWSONIA INTRACELLULARIS
THE INVISIBLE ENEMY HIDES FARM'S TRUE POTENTIAL

*Lawsonia affects 90% of swine farms.

Are you aware how this invisible enemy may impact your profitability?

More info at
www.lawsonia.net



MSD
Animal Health



WHAT IS ILEITIS?

- **Enteropathy**, because it affects the intestine.
- **Proliferative**, because it causes the proliferation of the immature cells in the intestinal crypts (enterocytes).

Caused by *Lawsonia intracellularis*. It affects different animal species.

Almost globally present with 3 different forms.



ACUTE FORM: 4- to 12-month-old pigs

- Acute haemorrhagic syndrome¹ (PHE and NE).
- **High mortality**.
- It normally affects **gilts** and **fattening pigs** near their age of slaughter.



ACUTE FORM: 4- to 12-month-old pigs

- **No evident diarrhoea**.
- Decrease in the growth rate (**worse FCR and ADWG**).
- In Europe it appears earlier than in America³, during the **nursery stage**.

The most common form

CHRONIC: 6-20 weeks old pigs⁴

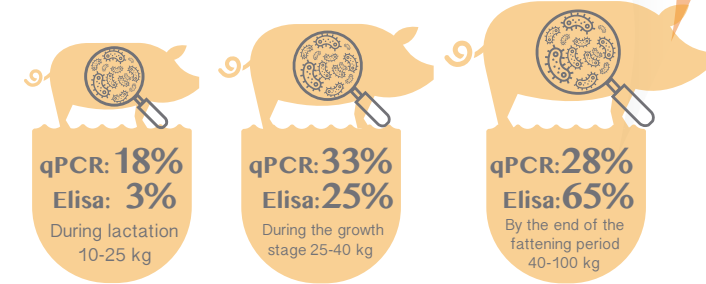
- Intestinal adenomatosis (PIA), with transient **greyish-greenish diarrhoea** (7-10 days) after which most of the pigs recover.
- **Lower evenness** of the batches.



PREVALENCE OF ILEITIS⁵

Present in Europe on between 80% and 100% of the farms.

High presence of *Lawsonia intracellularis* in **faeces**. The **viral load** can be **different** depending on the age group.



ECONOMIC IMPACT

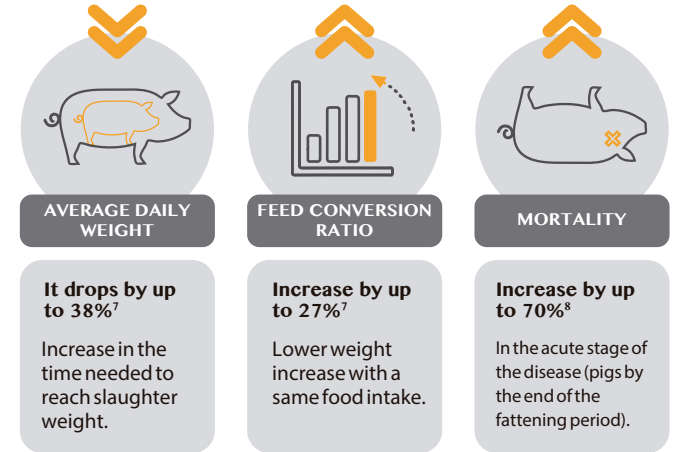
The main source of economic losses comes from **productivity losses**.

Increase in differences in growth > unevenness in the batches > greater costs.

The **estimated losses** in the USA per commercialised pig range between:

US\$5.98 and US\$ 16.94⁶.

The cost of ileitis entails losses of between 2 and 4 million pounds (£) per year in the UK⁹

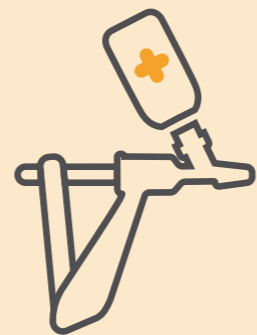


The **drop in the use of antibiotics** causes a decline in animal health, including an increase in **diarrhoeas, weight loss** and a **rise in mortality** caused by *E. coli* and *Lawsonia intracellularis* in newly weaned pigs⁹.



Prevention

Vaccination against *Lawsonia intracellularis* helps to **reduce the clinical signs**, production losses and **reduces the mortality** caused by ileitis.



Vaccine

The **intramuscular vaccination route** ensures that every animal receives the **correct dose**.



Injectable

VS

Treatment



Treating is a reactive, and not a preventive process, because it is the **animals** that are already ill the ones that are **medicated**, and consequently they are already suffering **production delays**¹⁰.

Antibiotic



The **drop in the use of antibiotics** in Europe is both a **social** and a **political** demand. Due to this prohibition, the disease appears at a younger age in European pigs.

Oral



The oral administration of an attenuated vaccine **does not ensure** an even **distribution** among the animals and **increases the risk of interferences** with other supplementary treatments, because it needs a time **frame** without **antibiotics**.

¹ McOrist & Gebhart, 2012.

²Paradis M.A., McKay R.I., Wilson J.B., Vessie G.H., Winkelman N.L. and Gebhart C.J. Subclinical ileitis produced by sequential dilutions of Lawsonia intracellu-
laris in a mucosal homogenate challenge model.

³ Guedes R.M.C., Clinical signs of Ileitis. 2018.

⁴ Lawson y Gebhart, 2000.

⁵ Internal prevalence study, pending publication.

⁶ Holtkamp, 2019

⁷ Paradis M.A. et al, 2005

⁸ Rubio P., 2018

⁹ <http://jac.oxfordjournals.org/content/52/2/159.full>

¹⁰ Hoelzer et al. 2018. Vaccines as alternatives to antibiotic for food producing animals.

*Based on Guedes TM Chapter Rostagno et al.; IPVS 2014