

After enzootic pneumonia-type lesions, pleurisy is the second most common reason for condemnations in pigs at abattoirs. Over 12% of pigs and 68% of English herds are affected. Pleurisy causes pigs discomfort when breathing and lowers their daily liveweight gain resulting in lighter carcasses and/or an increase in the number of days to slaughter. At the abattoir, the carcass has to be trimmed, reducing the value to both the farmer and the abattoir. Costs of disposal are increased and line speeds are reduced, increasing processing costs. Production losses from pleurisy can be as high as £3.72 per pig, for a typical batch where 1 in 10 of pigs has pleurisy.



To control pleurisy on-farm and improve the growth and efficiency of the growing herd and reduce variation

To reduce the losses in carcass value and the increased processing costs at the abattoir

To use the data from BPHS reports to monitor changes in the prevalence of pleurisy

To improve pig health and welfare

Many infectious organisms can be involved in causing pleurisy, including PRRSV, APP and PCV2. During infection, the pleura (the lining that surrounds the lungs and the chest cavity) become inflamed and rub together, potentially causing pain when breathing.

The cost of pleurisy to the producer

BPEX-funded research by a group led by the University of Cambridge found that pleurisy is associated with a lower average lifetime daily weight gain, a lower carcass weight (costed at 150 p/kg) and an older than average slaughter age (costed as feed at 52p per pig per day). Herds with pleurisy prevalence running at >10% at slaughter also have post-weaning mortality rates around 3.3% higher than unaffected units

In a batch of pigs, every 1% increase in the number of pigs with pleurisy reduces average trimmed carcass weight by 70g and increases the average days to slaughter by 0.26 days.

This means for a batch of 100 pigs in which 10 pigs had signs of pleurisy, the cost in terms of increased post weaning mortality reduced carcass weight and increased age at slaughter, is as follows:

	Impact	Cost/100 pigs
Increased post-weaning mortality	3.3% increase @ £40/pig	£132
Reduced carcass weight	700g/pig @ 150p/kg = 70kg	£105
Increased days to slaughter	2.6 days/pig with feed @ £215/tonne = 260 days	£135
Total		£372

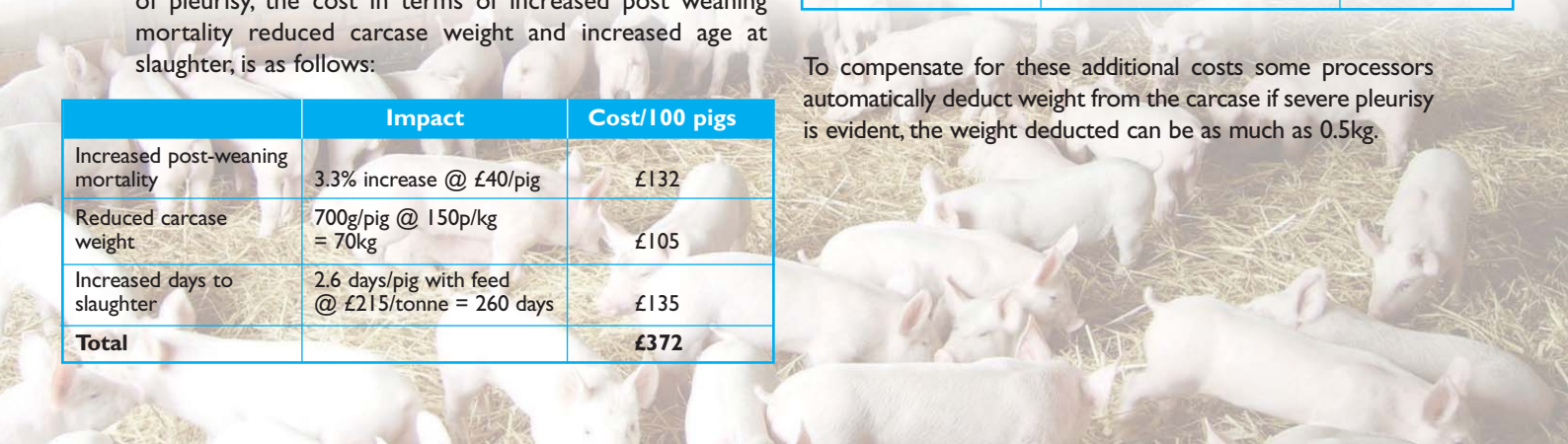
The cost of pleurisy to the abattoir

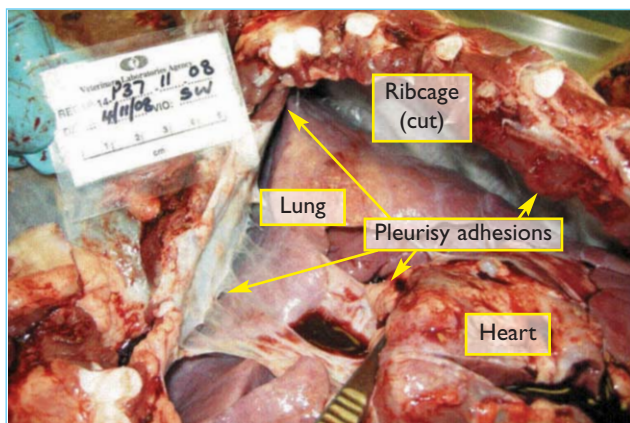
Pleurisy results in extra processing costs at the abattoir because of the extra trimming required to separate the lungs from the carcass wall and increased costs of disposal.

For a batch of 100 pigs where 10% (10 pigs) have severe pleurisy, an estimate of the cost in terms of extra trimming and disposal of condemned material based on records from a batch of 1191 pigs is as follows:

	Impact (batch of 1191 pigs)	Cost/100 pigs
Overtime for entire slaughter	8.5% reduction in line speed (+25 min) = £199/batch	£16.70
Additional staff required	1 additional slaughter man = £35/batch	£2.95
Overtime for MHS	£106/batch	£8.90
Increased costs of disposal for Category 2 animal by product	£14/batch	£1.20
Total	£354/batch	£29.75

To compensate for these additional costs some processors automatically deduct weight from the carcass if severe pleurisy is evident, the weight deducted can be as much as 0.5kg.





Pleurisy adhesions visible at the abattoir

Management guidelines

- Buy stock from an appropriate source, depending on your herd health status
- Isolate incoming pigs for 6-8 weeks and check source health status with your supplier before integrating pigs into your herd
- Optimise stocking levels and ventilation in your buildings
- If not already managing buildings all-in all-out, try to see if you can change your system to make this possible
- Make sure you have a thorough cleaning, drying and disinfection programme in place (see *Action for Productivity 10: C&D*)
- Review your control programs for PCV2 and PRRS; even subclinical infections with these viruses appear to be important
- In heavily infected herds where the causal organism(s) has been identified, it may be necessary to consider a partial or complete depopulation-repopulation strategy. Discuss this with your veterinary surgeon to check whether it is likely to be effective, given the health status on your farm.

Factors associated with reduced levels of pleurisy in pigs at herd level

Cleaning, drying and disinfecting finisher pens before refilling
Minimising contact between pigs of different age groups
More down-time for grower pens before refilling to ensure sufficient drying time
No mixing of pigs
Minimal moving of pigs around the unit

No one approach will apply to all farms. Management of the environment and stress will depend on the design of the piggery and the facilities available and may affect the success of any programme based on vaccination or the strategic use of antibiotics.

Work with your vet to develop a management plan that is appropriate for your farm. Give changes time to work and keep checking if there is an effect on your pleurisy scores in BPHS and on partial and total condemnations.

BPHS Reports

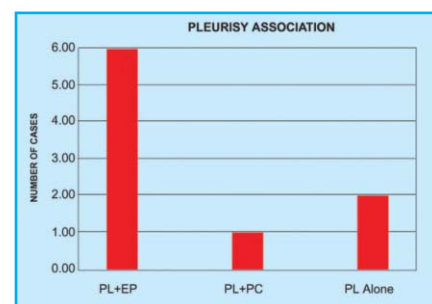
- The BPHS report provides a pleurisy score for every batch of pigs assessed. The severity of pleurisy is determined by the proportion of the lung that is affected
- Any small area of pleurisy, regardless of whether it is on the lung or attached to the chest wall, is classed as localised (score 1)
- Larger areas of pleurisy, over about one-fifth of the total lung area, are classed as extensive (score 2)
- Add the scores for localised and extensive to find the total percentage of pigs that had pleurisy in the batch assessed
- A guide to interpreting BPHS producer report sheets can be downloaded from www.bpex.org.uk

BPHS interpretation chart

The bar chart on the report also shows the number of individual pigs with pleurisy that:

- Occur together with pericarditis (inflammation of the lining that covers the heart)
- Occur with Enzootic Pneumonia (EP)-like lesions
- Occur in isolation.

Your veterinary surgeon will be able to help you use these results to determine the likely cause of pleurisy within the herd.



Example chart from a BPHS report

What were your recent BPHS pleurisy scores? Can you see a trend? Discuss these with your veterinary surgeon and ensure that an appropriate strategy is in place to maintain or control the status of your herd(s).

Not a BPHS member or need more information about the scheme?

Tel: 0247 647 8877

Email: pighealth@bpex.ahdb.org.uk

Visit: www.pighealth.org.uk

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