Abattoir lesions in cattle associated with an increased age at slaughter

NV Meunier, C Correia-Gomes, DG Graham

Animal Health Ireland, 2-5 The Archways, Carrick-on-Shannon, Co. Leitrim, Ireland

nmeunier@animalhealthireland.ie

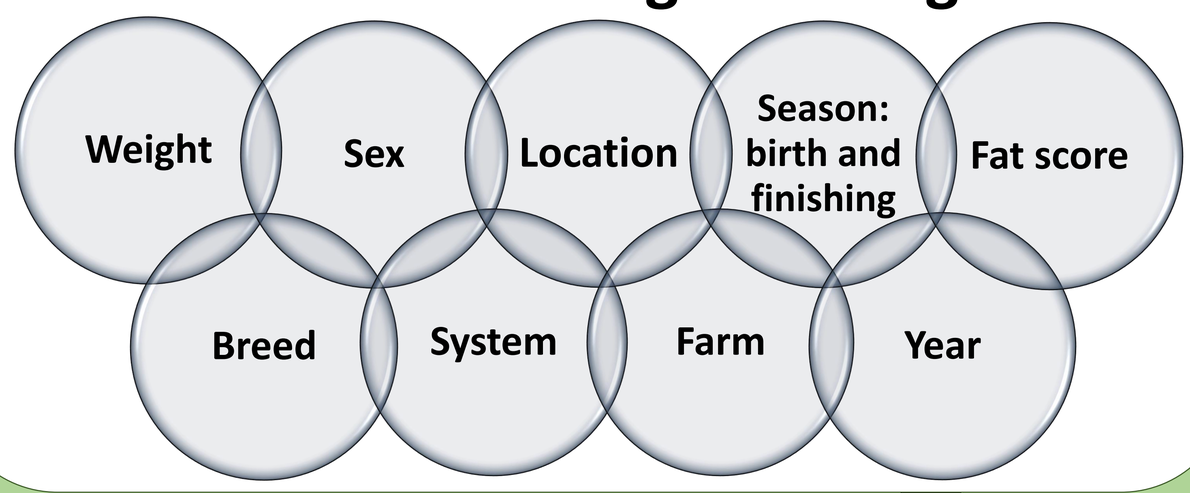
Is disease detected post-mortem associated with a detectable increase in the slaughter age, as a proxy for a decrease in production?

- Sub-clinical diseases can reduce weight gain or production efficiency, resulting in animals taking a longer time to reach slaughter weight.
- Farmers are more likely to send animals to slaughter when they reach a certain weight or fat coverage.

What data do we have?

- ✓ Irish cattle abattoir dataset
- ✓ Years 2016 to 2023
- ✓ 4.4 million records
- ✓ Health information on liver/lung
- ✓ Animal and herd demographics
- ✓ Carcase information

What do we need to consider that also affects age at slaughter?



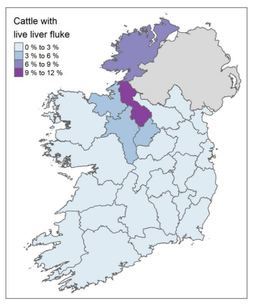
Linear mixed effects models, herd as the random effect

For steers in beef production systems and beef breeds:

Liver fluke

27% of herds affected on average

Strong geographical component



Additional age at slaughter with active liver fluke

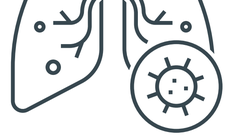
37 days mild disease

50 days severe disease

Pneumonia

31% of herds affected on average

Strong severity component



Additional age at slaughter with pneumonia

9 days mild disease

23 days severe disease

The effect increases with severity of the lesions.
Reduced effect in young bulls – possible limited exposure time.
Extra days on farm impacts economic and environmental sustainability.

www.AnimalHealthIreland.ie

To contribute to an economically, socially and environmentally sustainable farming and agri-food sector through improved animal health and welfare.