ANIMAL HEALTH IRELAND

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

Abattoir lesions in cattle are associated with an increased age at slaughter

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Carla Gomes, David Graham

Teagasc Beef Conference
13 December 2022

Introduction

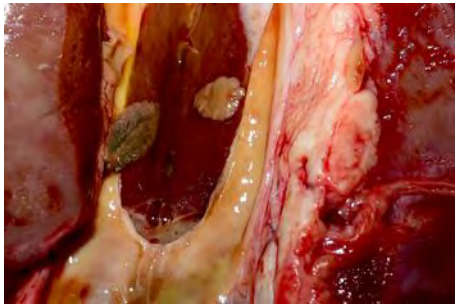
- Poor health is widely recognised to negatively affect performance in cattle
- This can go unrecognised in animals with subclinical disease, often only with lesions at slaughter

Beef HealthCheck

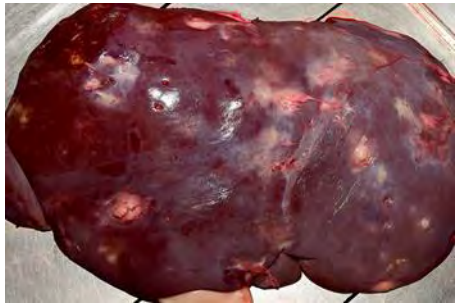
- Delivered in partnership with Meat Industry Ireland and DAFM
- Abattoir data collected since 2016 by TVIs in 17 factories nationwide
- Primary aim of programme to collect health information and deliver that back to farmers

Data collection

Veterinary inspection



Live liver fluke parasites
Liver fluke damage

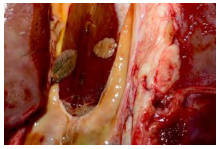


Liver abscesses

Pneumonia

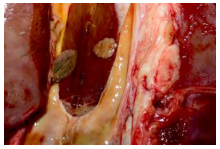
Collected on the slaughter line with touch screens

Data collection



Data sent to a cattle database (ICBF)

Reporting



Data sent to a cattle database (ICBF)

Farmer receives a report from the abattoir

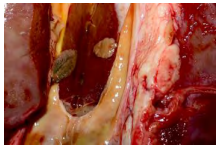
BEEF HealthCheck
AnimalHealthIreland.ie

SUPPLIER:	A. FARMER
HERD NO:	A123456
DATE OF SLAUGHTER:	01/01/2016
FACTORY:	BRANCH XYZ

Beef HealthCheck Report

TAG	SEX	AGE (mths)	CARCASE (kg)	LIVER SCORE	LUNG SCORE
IE 12 34567 8 0001	E	20	330	1	3
IE 12 34567 8 0002	C	22	360	3 / 5	1
IE 12 34567 8 0003	D	40	400	2	1
IE 12 34567 8 0004	B	44	500	1	1
IE 12 34567 8 0005	E	19	340	1	2
IE 12 34567 8 0006	C	20	350	1	4
IE 12 34567 8 0007	D	56	410	4	1

Reporting



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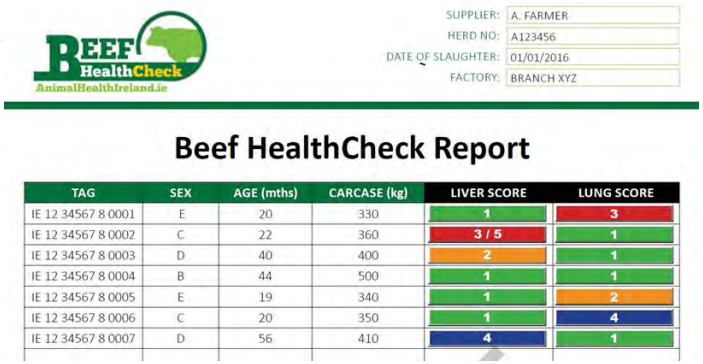
Farmer receives a report from the abattoir

Online tools for farmers, veterinary practitioners and Teagasc advisors



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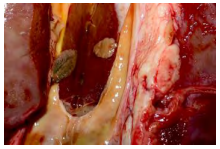
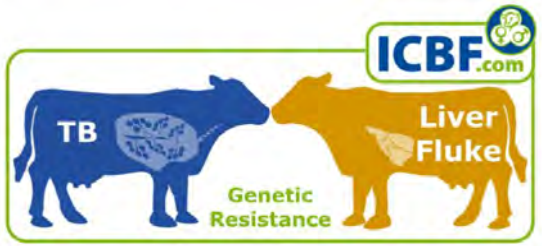
beefhealthcheck.icbf.com
Services> AHI Animal Health

Genetic evaluations



Data sent to a cattle database (ICBF)

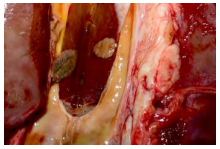
Data contribute to breeding values and genetic evaluations



Proofs Ranked on the Predicted Prevalence of Liver Fluke

Genetic Evaluations > TB & Liver Fluke

National reporting and analysis

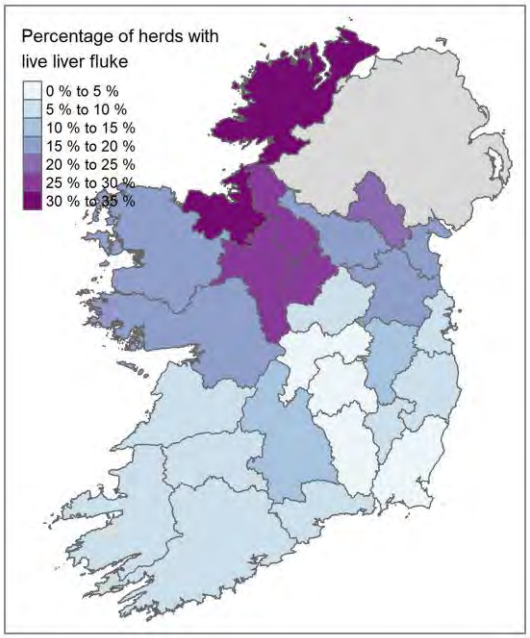


Data sent to a cattle database (ICBF)

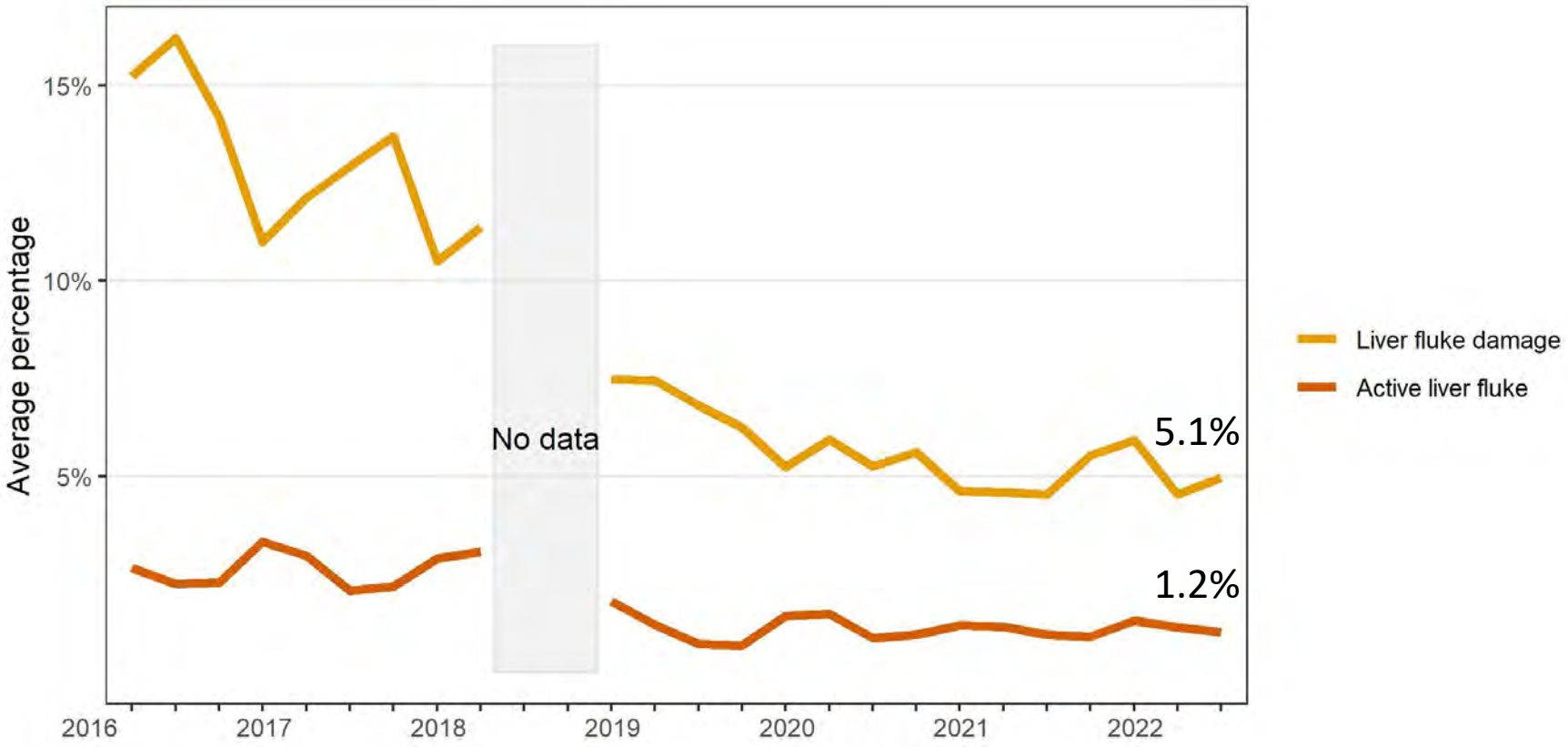
Anonymously sent to AHI for national reporting and analysis

Liver fluke

- Parasite with intermediate snail host needing wet ground for its life cycle
- Liver damage, poor thrive, acute deaths (esp. sheep)
- Studies shown decreased weight at slaughter, fertility



Liver fluke in young stock at slaughter



NATIONAL BEEF HEALTH PROGRAMME

Beef HealthCheck
Animal Health Ireland.ie

Liver abscesses

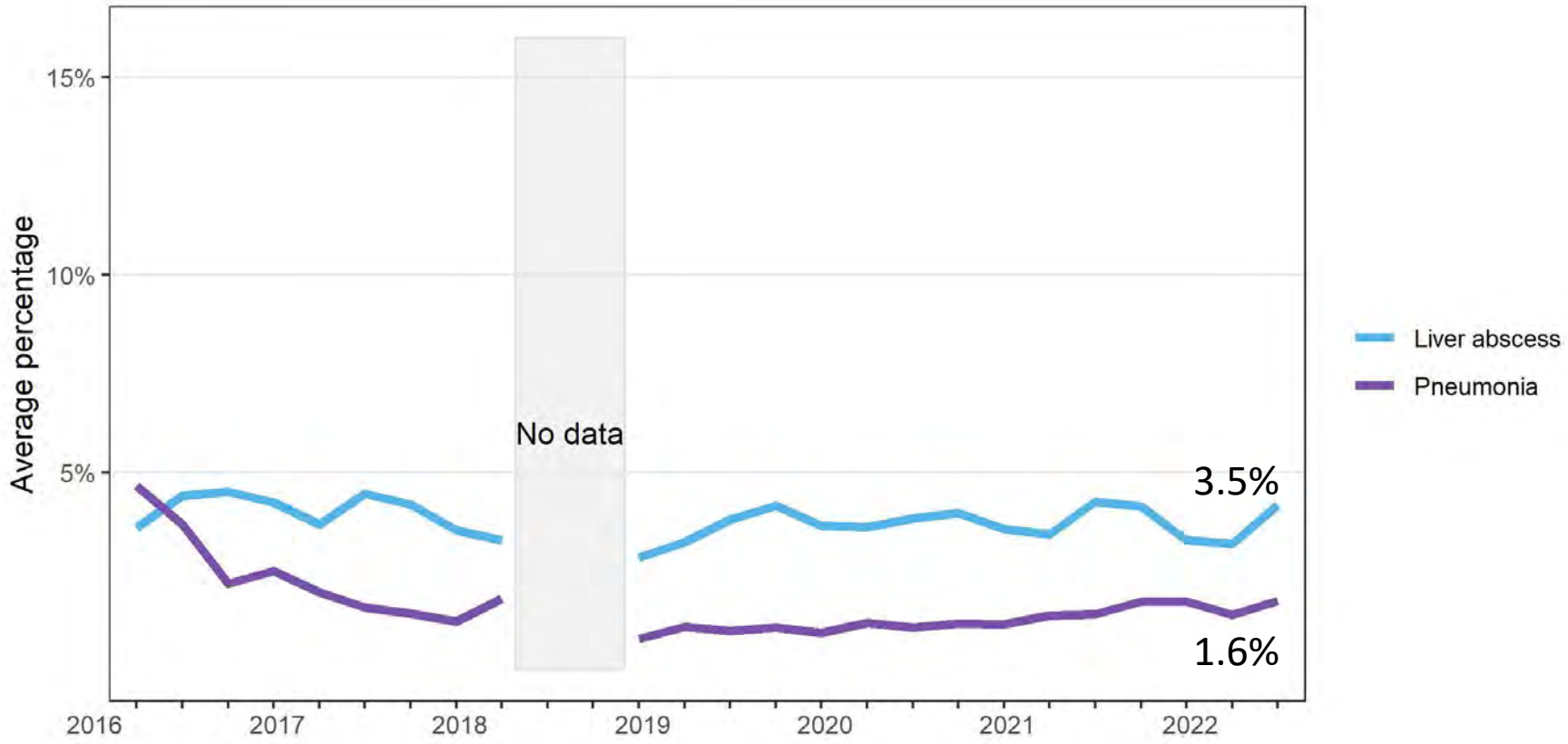
- Unrelated to liver fluke
- Ruminal acidosis, can be (sub)clinical
- Feeding high energy ration
- Quick change to lower roughage feed without rumen adaptation
- Associated with reduced weight gain and feed efficiency

Image: Teagasc

Pneumonia

- Inflammation of the lungs – respiratory disease
- Can have multiple causes – bacterial, viral, lungworm, environmental stressors
- Major problem in young stock, particularly around weaning, transport, housing
- Associated with lower carcase weight, decreased growth performance

Liver abscess and pneumonia in young stock at slaughter



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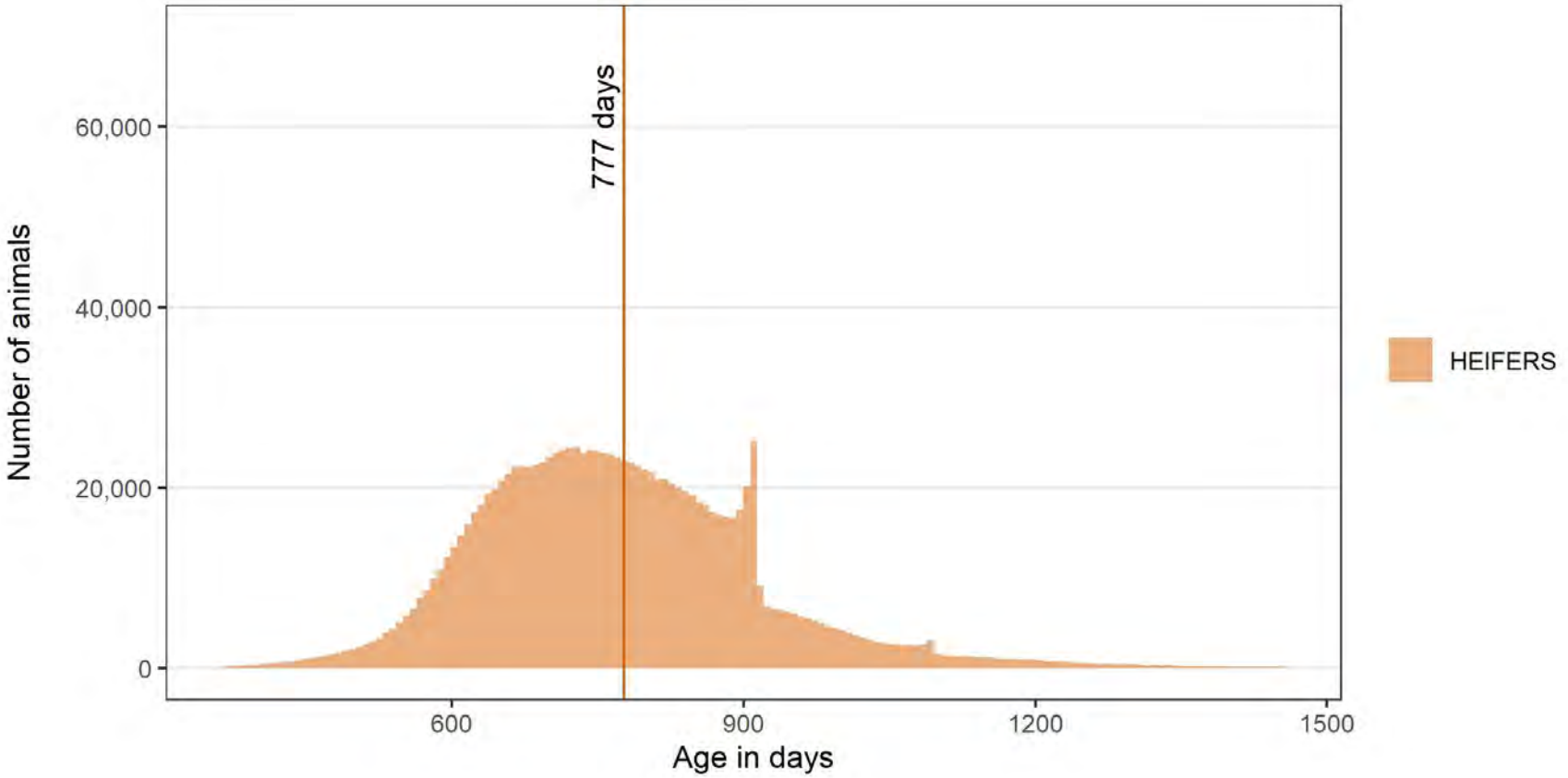
Analysis

- Collecting health status at slaughter ongoing from 2016-2021
- Heifers/steers/young bulls

What can this data tell us about age at slaughter?

Age at slaughter



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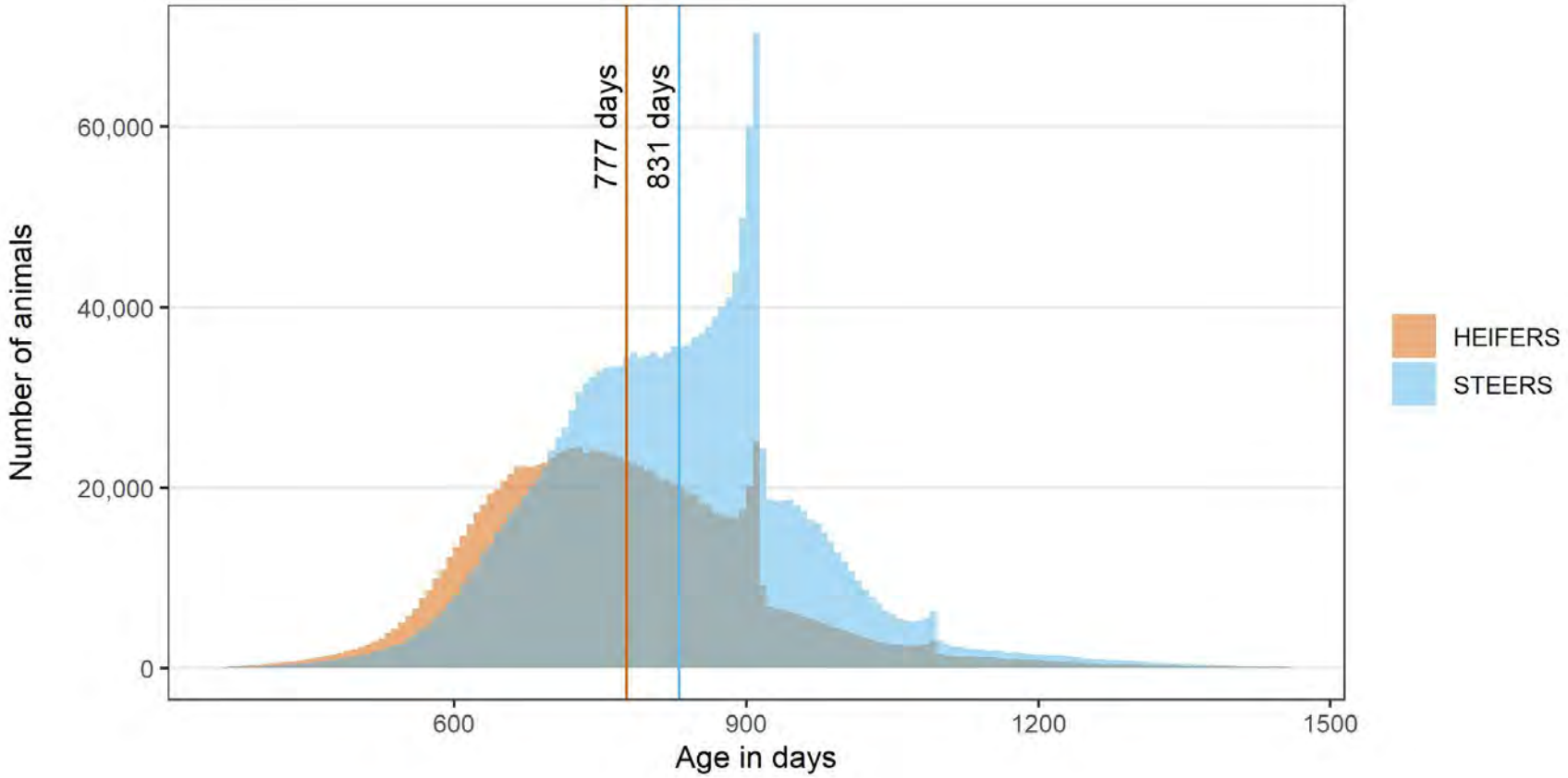
Age at slaughter



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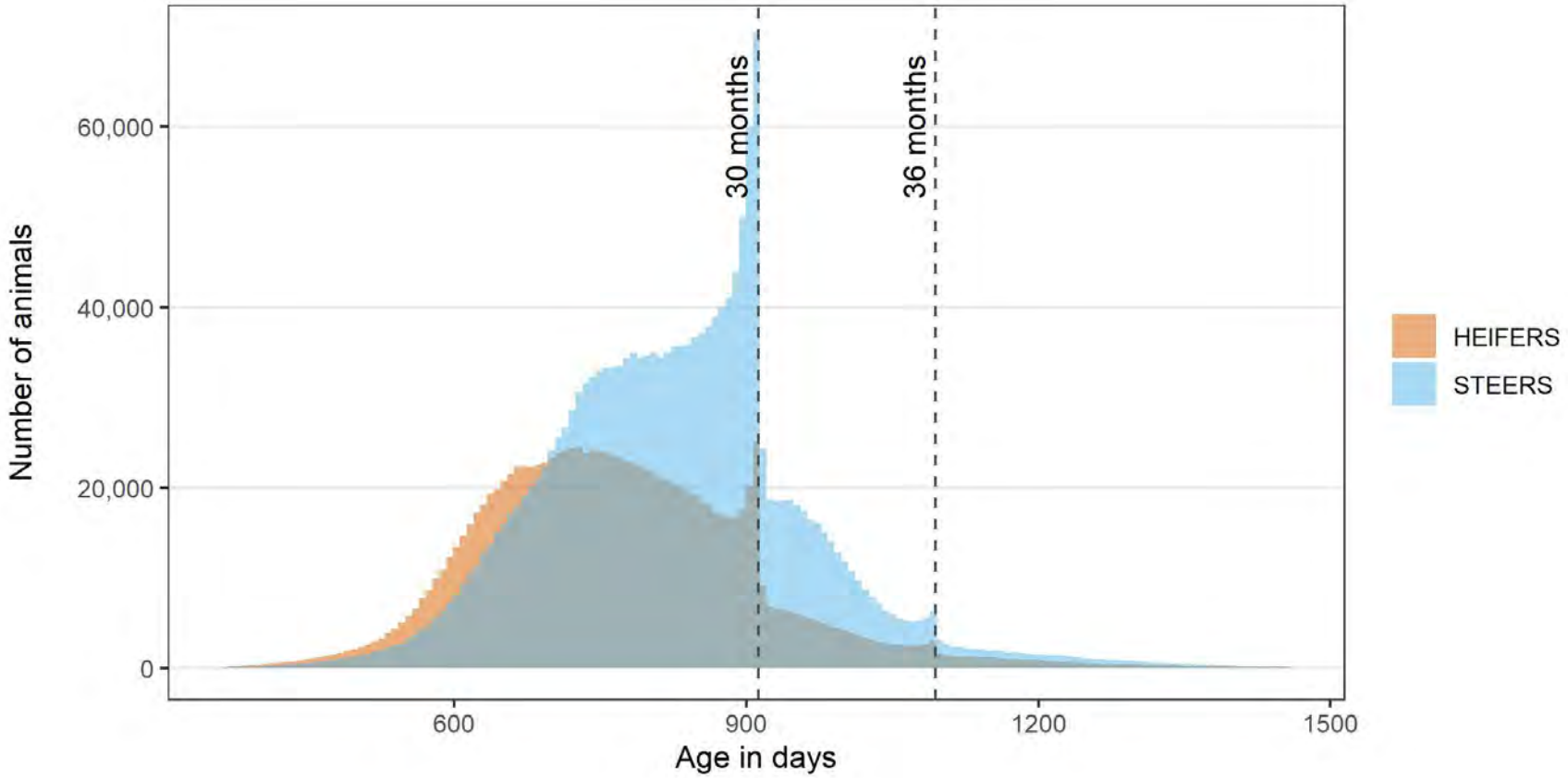

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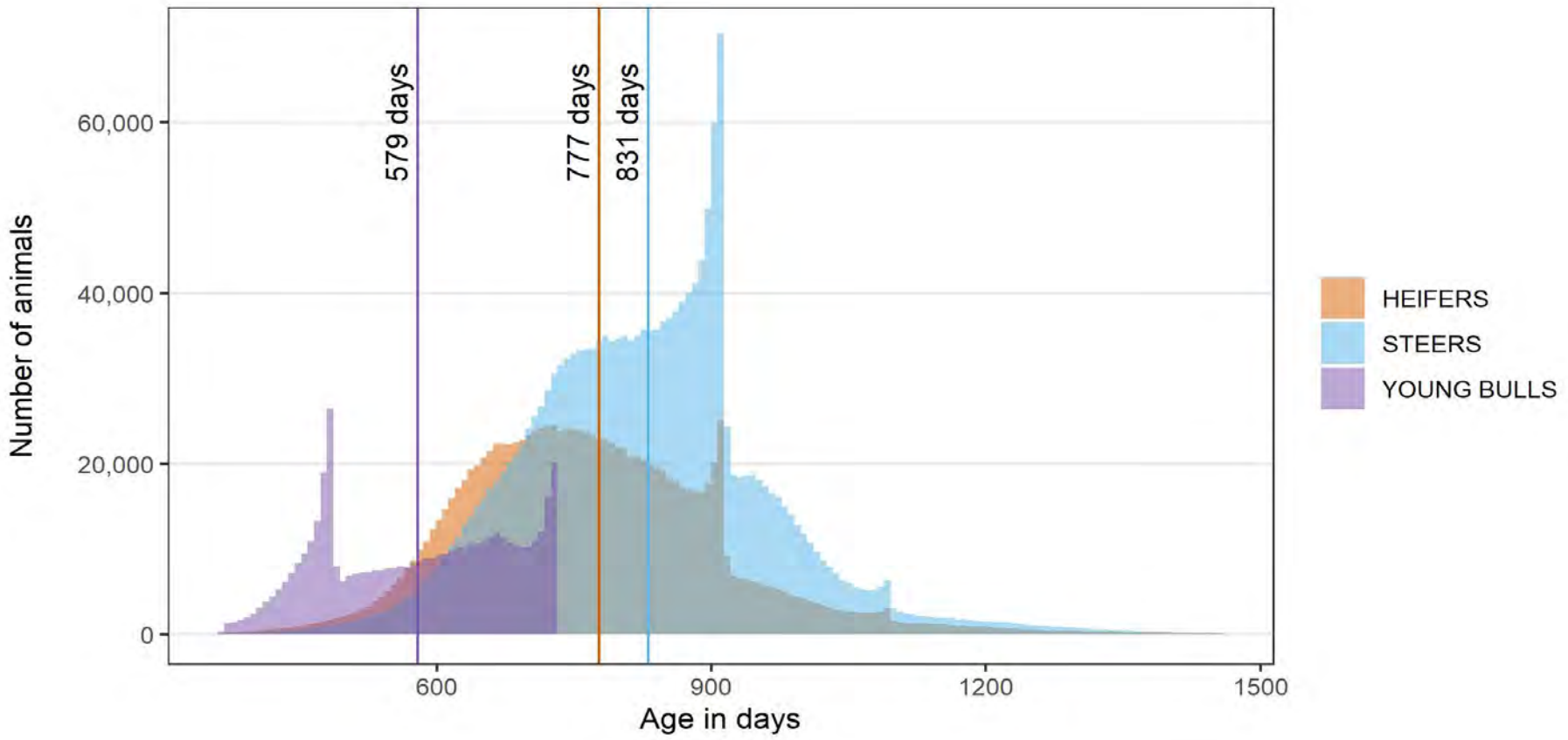

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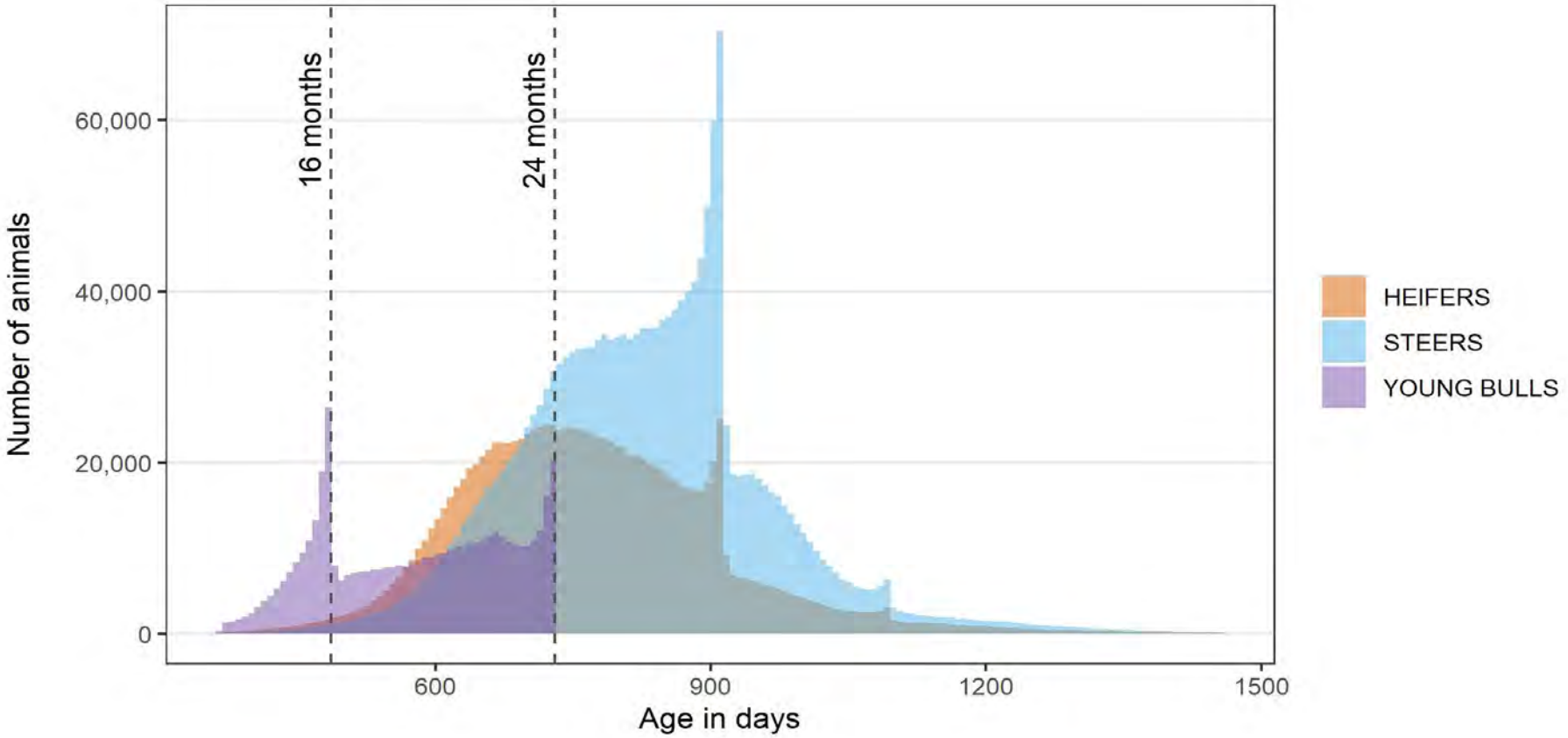
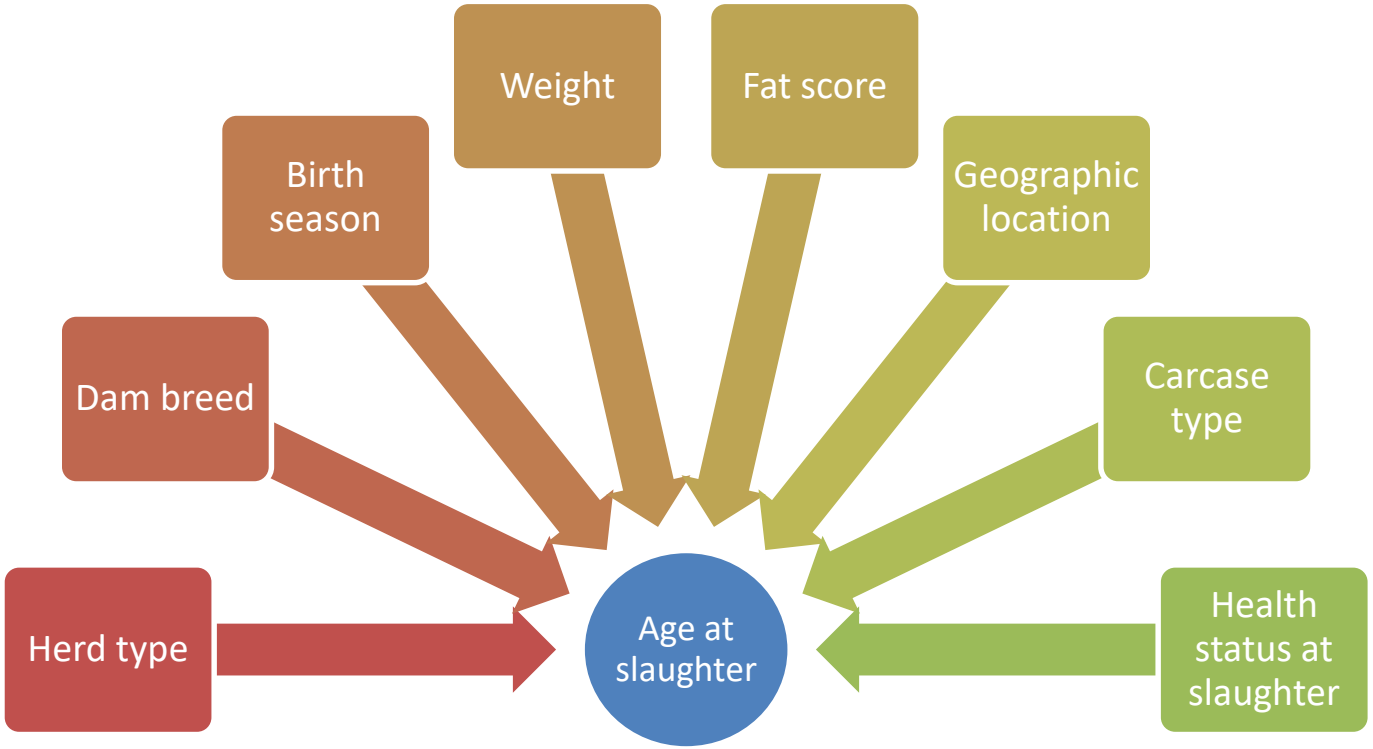
Age at slaughter



Analysis

Many factors influence time to finish



Liver fluke: additional days to slaughter

Type of animals	Any sign of liver fluke (Number of days older)
Heifers	39.8 (All herds) 38.5 (Beef herds)
Steers	46.0 (All herds) 38.0 (Beef herds)
Young bulls	No effect

In **beef herds**, flukey cattle were on average **38 days older** at slaughter

Varied by herd type, 32 days in steers from suckler herds to 46 days when looking at all herd types

Liver fluke: additional days to slaughter

The effect of poor health on performance is cumulative and worse for chronic conditions.

Type of animals (Beef herds)	Active liver fluke	Liver fluke damage
Heifers	18.8	43.3
Steers	24.8	40.9

Liver abscesses and pneumonia

Type of animals (Beef herds)	Liver abscess (days older)	Pneumonia (days older)
Heifers	**9.2**	11.4
Steers	**8.2**	15.3
Young bulls	**5.6**	3.7

Liver abscesses and pneumonia

Type of animals (Beef herds)	Liver abscess (days older)	Pneumonia (days older)
Heifers	9.2	**11.4**
Steers	8.2	**15.3**
Young bulls	5.6	**3.7**

Animal health and performance

Why does it matter? Older animals are

- less profitable – costs to feed and house
- e.g. 5% x 38 days x €€

  (at minimum covers the cost of the fluke treatment – if needed)
- have a higher environmental footprint

Reducing age - efficiency - optimise cost per kg

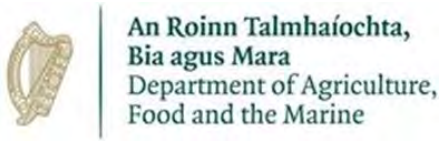
Subclinical losses are hidden in decreased production performance with additional upkeep costs.

Animal health – prevention and monitoring

Prevention is better than cure

- Loss in performance and feed conversion concept applies to many diseases
- Herd health planning improve profitability
  - vaccination, dosing, nutrition, housing, biosecurity
  - prevention rather than reaction
- Measure performance – liveweight gain, condition, slaughter reports
- Genetic improvements gains can be lost with poor animal health

Thanks



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