



# Dairy beef production: why does BVD matter?

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# Who am I?

- Dairy beef vet
- Last 20+ years working as a farm vet
- Interest calf health and production
- Now beef farming
- Nuffield Farming Scholarship 2014-15
- Integrated beef production
- Now run my own beef business





# StraightLine Beef



Quality beef, with a conscience



# Background to the business

- Result of 5 years research
- First batch started March 2014
  - Fully integrated dairy beef supply chain
  - 100% retained ownership
- From conception to consumption
  - Sire selection at dairy farm level
- Full control throughout life
  - Health protocols
  - Diet
  - Management





# Current position

- Farms
  - Working with 9,000 dairy cows
  - 7 x calf rearing, 8 x growing sites
  - 4 finishing sites
- 4 main production lines
  - Natives: Angus, Hereford, Sussex
  - Continentals: British Blue
  - 100% dairy: steers
  - Bulls: 100% dairy and beef cross
- Supplying 300 cattle per month





# Straightline Beef 2019

## Wales

1 x dairy unit:

- Produce calves
- 800 per year

1 x calf units:

- Contract rear calves
- Grow on to 150kg

3 x growing units:

- 700 head capacity
- Grow on to 400kg

2 x finishing units:

- 700 head/year

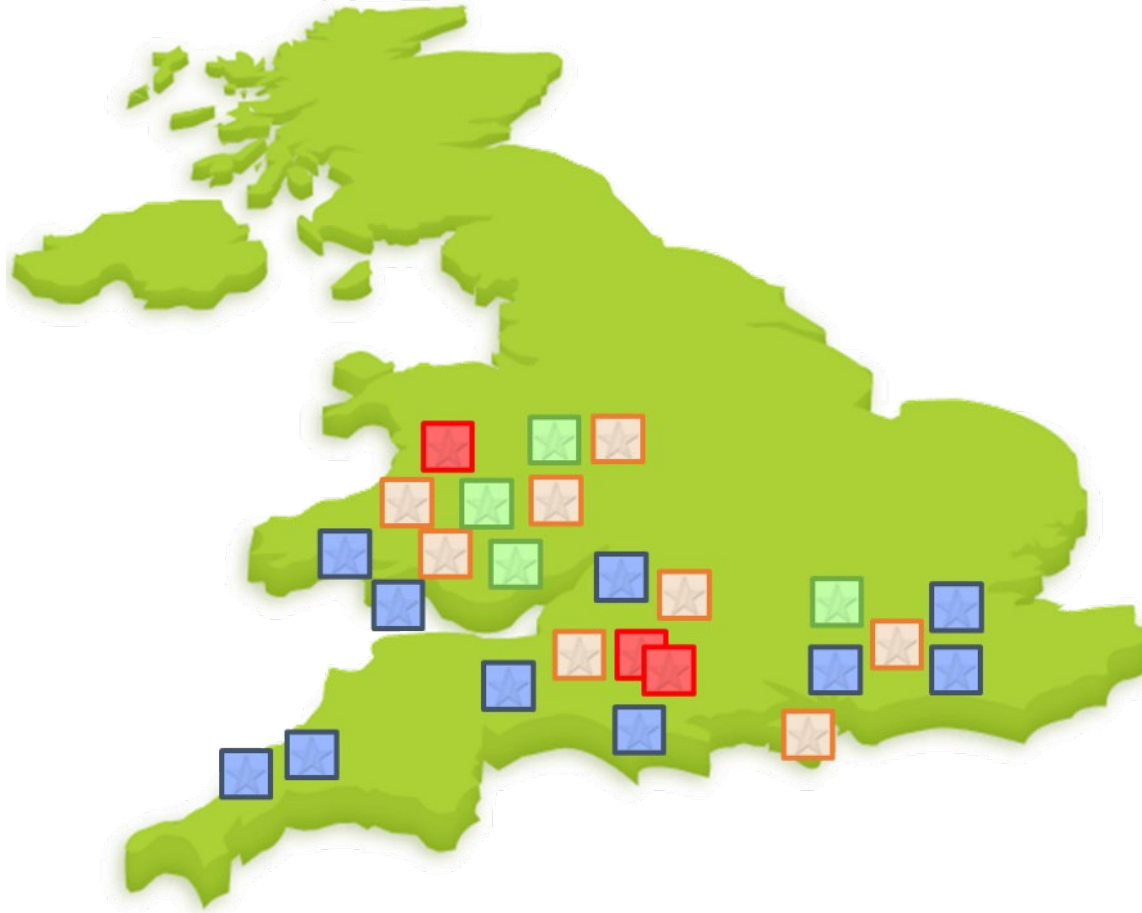
## West Country

5 x dairy units:

- Produce calves
- 3,000 per year

4 x calf units:

- Rear calves
- Grow on to 150kg



## South East

3 x dairy units in SE:

- Produce calves
- 700 per year

2 x calf units:

- Contract rear calves
- Grow on to 150kg

1 x growing unit:

- 400 head growing
- Grow on to 400kg

## West Country

4 x growing units:

- 3,000 head capacity
- 3,000 per year

2 x finishing units:

- 1,600 bulls /year
- 2,400 steers/heifers/year



# Winterwell Beef Unit

- Central 'base' hub in Somerset
  - Producing 800 calves and 2,400 head of beef/year
- Winterwell Farm
  - 800 acres grassland (300 acres HLS)
  - 300 head calf rearing and youngstock
  - Housing for 2,000 head
  - 2,500 head in summer
  - Grazing 1,000+ head
  - Housed calves, youngstock and finishing groups





# Precision Beef

- Managed system similar to dairy unit
- Team approach:
  - Farm, nutritionist, feed company, vet
  - Processors and end customers
- Measure to manage:
  - Full EID = routine weighing/monitoring
  - NIR analysis vs wet chemistry on all feedstuffs and TMR
  - Targeting dry matter intake and feed conversion
- SmartFeeding
  - Keenan SPF and In-Touch

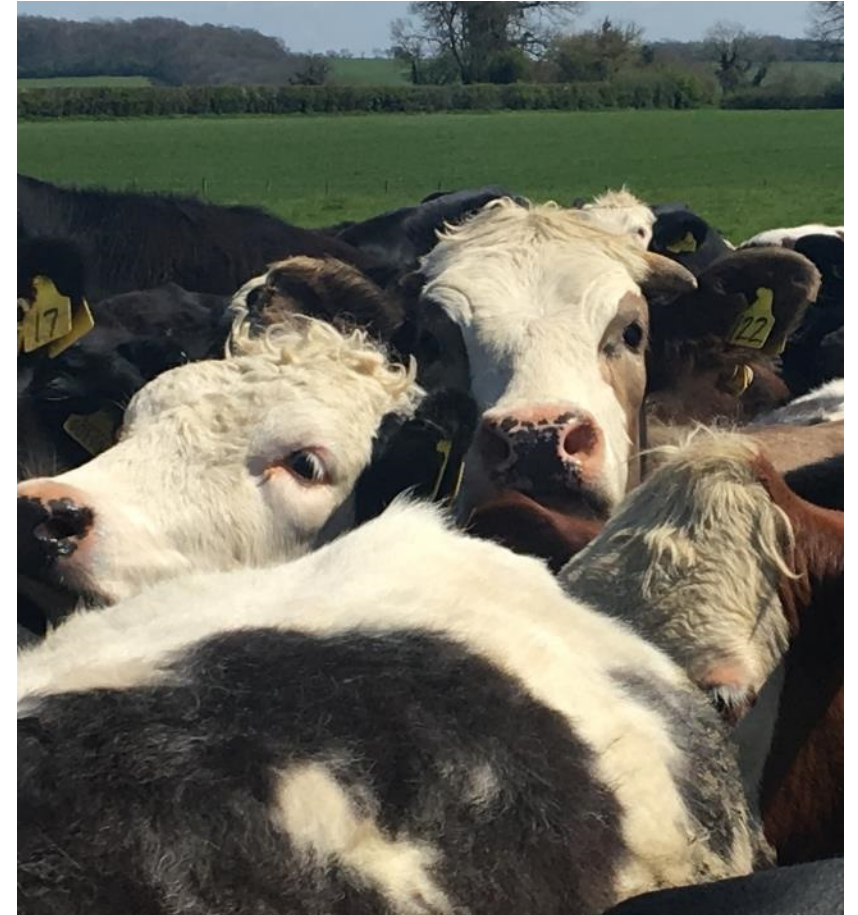






# Consumer and Customer Focused

- Welfare and assurance:
  - Weekly assessment of animal welfare
  - Independent audit and review by Bristol University
  - Quarterly review of farm health and welfare performance
- Lifetime health plan:
  - Full vaccination and prevention plan in place
  - Weekly vet visits to monitor
- Active antimicrobial reduction programme:
  - No critically important antibiotics used in lifetime
  - No prophylaxis at any stage in lifetime of animal
  - Partner with independent Pruex in AMR programme





**Why worry about BVD?**

**BVD impacts profitability as much as health**

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# Dairy farming varies greatly



- Big differential across national herd:
  - Average 8,100L and 130 cows/herd
  - Low input block calving grazing herds
  - High input 100% housed herds



# All rely on efficient production



- Targeted production – optimum for contract
- Supermarket vs non-aligned
- Welfare and assurance now vital



Heifer production





# Demands and challenges for beef industry



- By 2050 9bn people
- 4.9bn middle class
- Consumer perceptions
- Consumer vs public
- Flexitarian or vegan agenda
- Welfare and health
- Sustainability question
- Carbon footprint?

**We have to improve efficiency**

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# Beef calf production



Can you spot the PI?







BH20 5NU  
Phone: 01929480734  
Email:

Batch No.: 22111735TT  
Certificate No.: 22111735TT20171124123806  
Location: Hillington  
Authorised by: Derek Connolly, Disease and  
Microbiology Laboratory Manager

## NML HEALTHCHECK RESULTS

(Individual Cow samples)

*Table 1: Results For The Detection Of BVDv Antigen in Individual Cow Ear Tissue.*

*Analysis Methodology: Detection of BVDv antigens using commercial ELISA test kit.*

SAMPLE ID	SAMPLE DATE	BVDvAG	
		S-N	Category †
UK341550601305	20/11/2017	0.03	Negative
UK341550701306	20/11/2017	0.01	Negative
UK341550101307	20/11/2017	0.02	Negative
UK341550201308	20/11/2017	0.03	Negative

Can you spot the PI?

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# BVD in StraightLine

- Experience as vet and farmer
- Tag and Test new farms
- BVD Free units – supply
- Zero tolerance to BVD
  1. Impact on health
  2. Impact on production
  3. Impact on medicine usage
  4. Impact on efficiency
  - 5. Impact on profitability**





# BVD outbreak in July 2017

- Batch of 50 calves
- Single source
- Born 14 days span
- Arrived June 27th
- First treatment June 30th
- Mild signs – non specific
- By July 7<sup>th</sup> had treated 17 calves

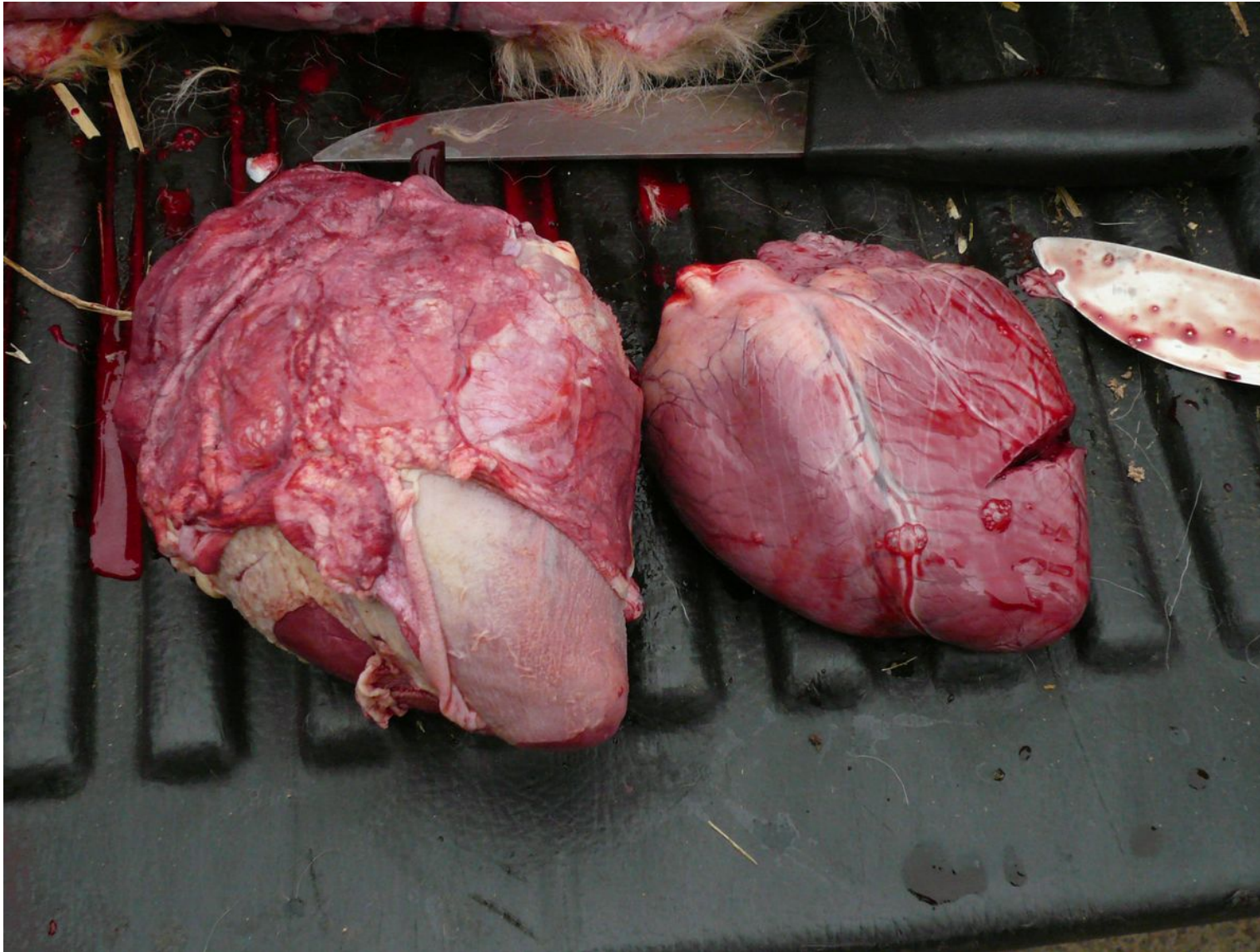




# BVD outbreak in July 2017

- Mild pneumonia
- Mild scouring
- Pyrexia – no obvious reason
- RD concerned 10<sup>th</sup> July
- Sampled – salmonella and BVD
- 14<sup>th</sup> July BVD identified
- Hunt PI – not easy





BVD – more than PI calves



# BVD analysis

- 1 x Persistently Infected calf
- High morbidity
- Low mortality – initial 2%
- 96% of animals in batch treated
- Long term impact:
  - Reduced DLWG
  - Increased medicine usage
  - Raised mortality 8%
  - Oldest animal still on farm





# Final impact of BVD?



Additional days to finish



## *Work towards herd health*

*“Herd Health is a bespoke process designed to positively foster the maintenance of good health in herds, but in such a way as to gain maximum economic advantage”*





*Work towards herd health*

**BVD** zero 

The main title of the congress. 'BVD' is written in a large, bold, red, sans-serif font. 'zero' is written in a large, bold, black, sans-serif font. The final 'o' in 'zero' is replaced by a black circle containing a white icon of a virus particle, which has a central core and several short, radiating lines representing surface proteins.

**BVD** zero   
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The logo for the BVD zero Congress. It features the text 'BVD zero' in a bold, sans-serif font, with 'BVD' in red and 'zero' in black. A small virus icon is positioned to the right of the word 'zero'. Below this, the word 'CONGRESS' is written in a smaller, all-caps, grey, sans-serif font.



# Sustainability – the future?

## Carbon Footprint

- McDonalds and Alltech ECO2 carbon score
- 2,100 cattle processed October 2017 to September 2018
- 5.98kgCO<sub>2</sub>e/Kg LW (UK system average 10.26kg/CO<sub>2</sub>e)
- 2018-19 target <5kgCO<sub>2</sub>e/kg LW

## Antibiotic usage

- 4,300 head in system – rolling 12 months
- Audited by Bristol University Veterinary School
- 80.9% animals received no antibiotic in lifetime
- 5.9mg/PCU total antibiotic usage



# Quality beef, with a conscience



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