

## Introduction to Dairying

Animal Production Systems  
A4005C17  
Dr Emma Bleach  
AC10 Aspire Centre

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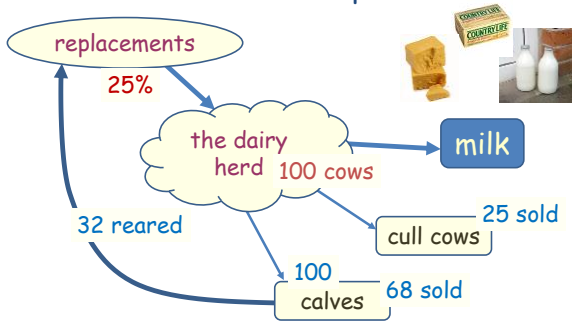
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### animals and animal products




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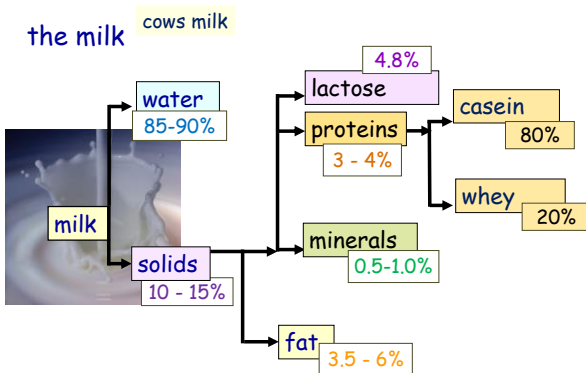
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### the milk




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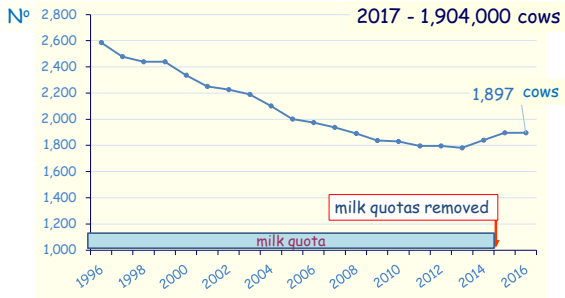
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### number of dairy cows in the UK (,000)



AHDB Dairy

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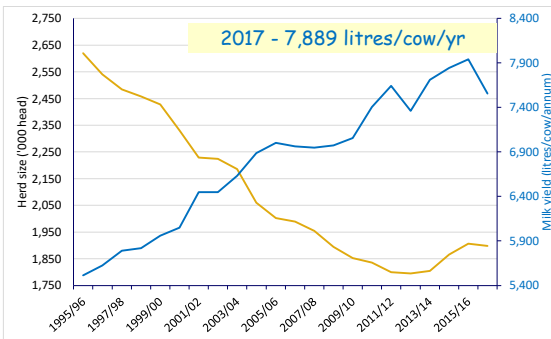
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### milk yields & dairy cow numbers




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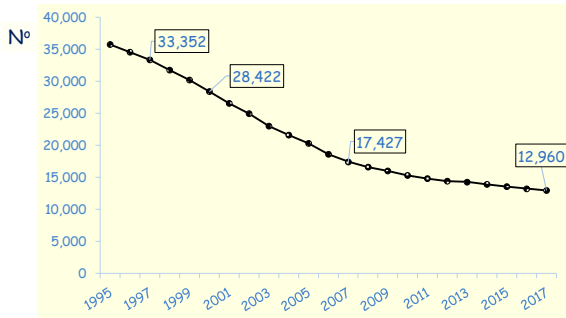
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### number of milk producers in the UK



AHDB Dairy, 2018

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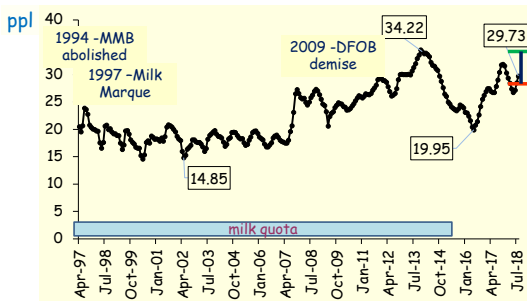
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December 2018 30.69 ppl

## UK Farmgate Milk Prices (ppl)

Currently price falling ↓




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Muller direct milk price 27.5 ppl

## Müller non-aligned milk price

- base price 27.50 ppl (32.50 ppl, Oct 2013)
- for milk of : (21.35 ppl, Jan 2016)
  - 4.00% butterfat
  - 3.30% protein
  - 1M litres pa (2000 - 2999 litres per day)
  - Bactoscan <30,000 cfu/ml
  - SCC <225,000 cells / ml

Müller 2018

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## milk quality adjustment

- Butterfat
  - premium +0.025 ppl for each + 0.01% above 4.00%
  - penalty -0.025 ppl for each - 0.01% between 3.99% and 3.55%
  - penalty -2.00 ppl below 3.55%
- Protein
  - penalty - 0.01 ppl for each - 0.01% below 3.00%

breeding

feed

Müller 2018

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## milk hygiene adjustment

Bactoscan (2 month geometric mean)

- Band 2 30,001 - 50,000  
-0.25 ppl
- Band 3 50,001 - 75,000  
-1.25 ppl
- Band 4 75,001 - 100,000  
-4.00 ppl
- Band 5 100,001 - 250,000  
-8.00 ppl

bacterial count

mastitis

dirty milk line /  
bulk tank

dirty cows

Müller 2018

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## milk hygiene adjustment

somatic cell count (3 month geometric mean)

- Band 2 225,001 - 250,000  
-0.25 ppl
- Band 3 250,001 - 300,000  
-1.75 ppl
- Band 4 300,001 - 400,000  
-6.00 ppl
- Band 5 > 400,000 -15ppl

white cell count

mastitis

Müller 2018

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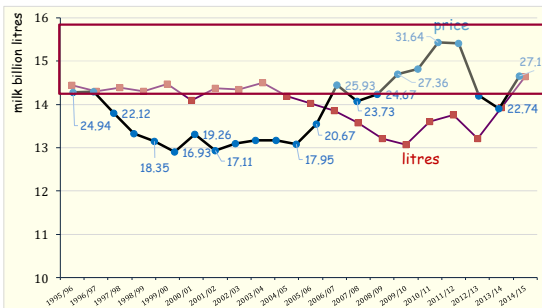
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## UK milk output vs milk price




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## breeds of dairy cow

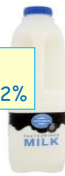
### Holstein



Holstein/Friesian

milk - 9,239kg  
fat - 3.91%  
protein - 3.17%

fat - 3.6%  
protein - 3.2%



selectively bred for milk  
liquid milk contract

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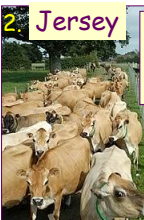
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## Other British pure dairy breeds



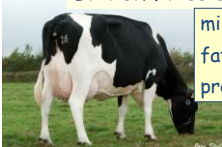
Jersey

milk - 6024kg  
fat - 5.46%  
protein - 3.83%



Ayrshire

milk 7037kg  
fat - 4.10%  
protein - 3.31%



British Friesian

milk 6966kg  
fat - 4.08%  
protein - 3.34%

CDI 2016

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## Other options

cross bred cow e.g.  
H/F x Jersey



### Montbeliard



milk 7466kg  
fat - 3.83%  
protein - 3.34%

### Procross hybrid vigour



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summary

- Introduction to milk
- Dairy industry stats
  - Key changes
- Buyers and contracts
- Milk prices
- Milk pricing structure
- Breeds of dairy cow

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