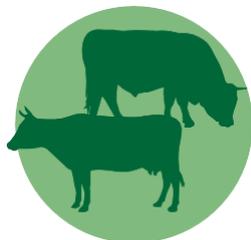




## Dairy Cows

# Methane Emission from Dairy Herd Reduced

## Russell Allison



Russell Allison,  
Feed Adviser, Galloway  
and MacLeod

### Key outcomes of feed advice

- Milk yields up by 2200 litres
- Methane emissions reduced and sustainability increased
- Improved feed ratios and profitability

#### Background and area of expertise

Russell Allison was brought up on a beef suckler Farm in Carluke, and attended SAC, graduating with a BSc in Animal Science. After travelling, he returned to work at SAC's Crichton Royal Dairy Research Farm in Dumfries. Russell joined Galloway and MacLeod in 2004 as company Ruminant Nutritionist.

#### Give an example of how your feed advice has made a measurable difference

On a 160 cow dairy herd over the past six years and in conjunction with the farmer, CIS (Cattle Information Service) recorded yields increased from an average 8,600 litres to 10,800.

The main driver was improving fertility by getting cows in calf earlier. Ration changes included increasing dry matter intake (DMI), reducing overall protein and increasing Omega 3s. Average calving interval reduced from 428 days to 398. Age at first calving was down from 2.8 years to 2.2.

The feed rate/litre was not efficient at 0.44 kg/litre. This has now been decreased to 0.35, with plans to reduce further. The increase in DMI and improved forage

to concentrate ration has resulted in less bought-in concentrate and improved profit margins. Methane emissions from the milking herd are monitored bi-monthly through milk samples, which provide a check on how the ration is performing. The better the ration performs, the more methane emissions decrease, improving sustainability. Currently these are estimated at 15.1g/litre down from a previous high of 23g/l.

More targeted feeding has driven down concentrate use/litre, and at the same time has increased milk volume produced from home grown forage. The changes have allowed the farm to invest in future sustainability with a move to robotic milking and computerised calf feeding and weaning in the past year.

#### What difference does FAR make to you and to your customers?

The introduction of the FAR has provided a strong structure for UK feed advisers and a level of confidence that farmers can have trust in. The level of knowledge and continuing training for feed advisors will help to 'raise the bar in UK agriculture'.