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Briefing note on food sector opportunities to reduce greenhouse gas emissions

Mitigating the environmental impact of cattle and sheep: animal genetics and farmers' readiness for uptake

Dr Ann Bruce

Farmers and others working in the food industry were interviewed to find out their views on reducing methane emissions.* Much of the research focussed on farm-based issues but a number of wider food-chain issues were raised.

Better integration of dairy and beef production

- Dairy farmers produce around 50% of beef, yet milk production is their core business. Cross-bred beef calves are a by-product. Schemes that encourage dairy farmers to use high EBV beef sires and provide a value-chain for these calves are an opportunity to increase efficiency and reduce carbon footprints.

"If [X] say we really like the progeny of this bull looks great on the supermarket shelves and [Y] who are rearing them have to say, we really like them because they grow really fast and they don't die, and we have to like them because they pop out easy and a bit early so it's a team thing. If any one of those things doesn't fit, it isn't going to work." Dairy farmer

More coherent and integrated value-chains in beef and, particularly, sheep production

- The beef value chain often fails to communicate market requirements, particularly between store producers and finishers. Initiatives such as producer groups could help focus the value chain better and improve efficiency.
- Sheep production has a very complex value chain without consistent market signals. Lambs may be born and reared



on different farms, breeders in the uplands may prefer traits other than those wanted by lowland producers and so on.

The role of meat processors in mediating value

- Meat processors work on very small margins and continuity of throughput is critical to their success, but they have to deal with highly variable supply of cattle and sheep.

"If you go to the US you can go to a feed lot with 50,000 cattle, everything will look

the same, peas in a pod, whereas if you try to pull 50,000 cattle together here in the UK you'd get absolutely everything, all sorts. That inconsistency of product makes it very difficult for us to be able to retail beef in a better way than we currently do here in the UK."

Veterinary surgeon

- The EUROP grading scheme may be effective at screening out the worst animals, but rewards for superior carcasses are perceived as too low compared to standard carcasses by some. Yet the scheme does not necessarily encourage the sort of carcass the supermarkets want.

- Processors already manage a range of different production requirements (e.g. feed, welfare, etc.) from different buyers. If carbon footprinting is introduced then a single method of calculation would be advantageous.

The role of supermarkets in mediating value

- Farmers interviewed were critical of the amount of movement of food to supermarkets (while recognising it may be economically efficient). Long distances to take animals to slaughter (sometimes specified by supermarkets) were a particular issue.

"We have in the past supplied [supermarket] quite a lot, but then they shifted the abattoirs so that just became unrealistic for getting there."

Dairy farmer with sheep

- The speed of change that is possible is very different between supermarkets and farms.

"If we want to make changes today in terms of what beef ends up on the supermarket shelf, we change the breeding today, we wait nine months for the calf to come, we wait 15 months minimum for the animal to be finished, we're two years away from any changes. The slowness of everything doesn't help when you come to supermarkets that like to change what they're doing almost daily." Veterinary surgeon



- Inevitably many farmers were suspicious about the motivations of supermarkets should they become actively involved in actions to reduce methane.

"There is an instinctive distrust by the farming industry of the major retailers but I don't know, I think we have to, not forget that, we have to be aware of it but we still have to be mature in the way we deal with them. And I think there will be opportunities in the future."

Sheep breeder

"I think the supermarket incentives have so often turned out to be tied in with quite onerous costs as well, I would be suspicious of any incentives they offered." Dairy farmer

The role of consumers in providing appropriate market signals

- Farmers selling direct to consumers thought consumers would not be attracted to low carbon footprint meat, although this could provide appropriate market signals.

"When you talk about your meat, saying low carbon footprint doesn't really register with people, saying all grass fed registers people much more than low carbon." Organic sheep and beef selling direct to consumer

"If people were prepared to pay premiums for something on the grounds of welfare or environmental reasons then things would fall into place." Beef farmer

*Research study details:

42 in-depth interviews were conducted between Sept 2010-March 2011, of which 30 were with farmers and 12 with people working in the broader industry.

Farms were located from the South of England to the North of Scotland and included organic and conventional, upland and lowland, specialist breeders

as well as commercial producers and producers selling liveweight, deadweight and direct to consumers.

Contact Author:

Dr Ann Bruce, Research Fellow, ESRC Innogen Centre, University of Edinburgh, Old Surgeons' Hall, High School Yards, Edinburgh EH1 1LZ t: +44 (0)131 650 9105 e: ann.bruce@ed.ac.uk
web: www.burpingsheep.org or www.genomicsnetwork.ac.uk/innogen

Contact Centre:

Innogen: ESRC Centre for Social and Economic Research on Innovation in Genomics
www.genomicsnetwork.ac.uk/innogen
Innogen at the University of Edinburgh t: +44 (0)131 650 9113 e: Innogen@genomicsnetwork.ac.uk
Innogen at the Open University t: +44 (0)1908 654 782 e: Innogen@open.ac.uk

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