Briefing note on the sheep industry

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

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Sheep and beef farmers around the UK were interviewed to find out if they would adopt a range of technologies to reduce methane emissions.* Sheep farmers worked in a range of different environments, some of them very challenging. Farmers talked about a production system that worked for them, in their particular environment and reflecting their particular values. Factors within the system can act as major drivers or barriers to activity. Many perceived that opportunities to do other things than produce sheep in many upland areas of the UK are limited by topography (i.e. steep slopes) and weather.

"We're looking for good growth rates, we don't want them being around a long time, and we really don't want a lot of lambs through the winter, it's not our thing, our ground isn't really suitable for it and we haven't got a shed to put them in." Dairy farmer with sheep

Reducing methane production from sheep

Farmers interviewed found it difficult to accept the assertion that methane produced by sheep is a major contributor to global warming.

Using genetics

- Some sheep farmers use Estimated Breeding Values (EBVs), particularly on the terminal sire side.
- There was widespread recognition that animals in auction sales were likely to be overfed and would not necessarily perform well in the field.

"The [x breed] especially, you can't get any history or statistics or anything from them, it's just off a £40,000 tup, what does that mean? And they're all force fed and sold as fat as pigs, you're buying a pig in a poke, you just get what you see and that's it." Hill sheep and beef farmer

- Many did not trust EBVs to reflect the performance of animals on the hill. They preferred to rely on their own expertise in judging suitable animals rather than computer generated numbers.
- Much of pedigree sheep breeding forms a very specific, and lucrative, market that is not necessarily driven by genetic performance.

"We would expect to have something like 100 rams a year fetching more than £5,000 in the sale ring in the back end, and quite a lot more than that fetching over £1,000. That's a huge slice of the income of those farmers who are in that pedigree market." Veterinary surgeon

"I'd love to produce a £20,000 ram, but I never will, but I will sell all the rams that I can produce that are fit for purpose easily." Sheep breeder

Other methods of reducing methane emissions

- Sheep production relies primarily on grass, and ewes may only be fed concentrate feed for around six weeks of the year. So, using additives to reduce methane emissions is not practical in many situations.

- Sheep are often grazing upland or in conservation areas. This limits the opportunities to change grass varieties to reduce methane emissions.

Sheep value chain

- Economic benefits from faster growth rates or improved feed efficiencies are often not immediately visible to sheep farmers.

"That's the key to it really, in that if farmers are using EBVs, they need to be able to demonstrate economic benefit or they won't continue. At the moment, because of lack of records, most of them can't actually demonstrate to themselves the economic benefit."
Sheep industry specialist

- The sheep sector is dominated by a complex multiplication pyramid and there are few clear, consistent messages about what is valued. 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 F1 hill ewe crossed with a long wool ram is still an extremely important ewe in the lowlands and, despite what everyone says, in commercial terms, the big flocks with big overheads take some beating… And we forget that at our peril."
Sheep industry specialist

- A number of breeding initiatives could change the way in which value-chains are developed. For example 'Easy care' and wool-shedding sheep, which require less labour to look after them, were attractive to many sheep producers, but may not suit all environments.

***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. 17 farmers produced sheep, of which four were specialist breeders.

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