

Bovine Mobilities and Biosecurity: Why Do Farmers Buy Cattle?



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INTRODUCTION

Cattle movements are a well-recognized risk factor for the spread of disease between herds. To achieve good biosecurity, farmers are advised against purchasing cattle, and encouraged instead to keep closed herds (Sayers et al., 2013). Despite veterinary advice on best practice, many farmers buy cattle from markets, dealer networks and directly from other farmers.

It is important to understand the motivations and drivers for farming practices which have implications for the spread of infectious agents, and which are part of the 'causal web' of disease (Cook, 2013; Pfeiffer, 2013).

As part of a human geography study of factors influencing bTB eradication, farmers in Northern Ireland (NI) were interviewed about their reasons for purchasing cattle. The findings demonstrate that cattle trading is both an economic and a social activity; a complex interplay of everyday farming practices often fused with a sense of cultural identity and personal wellbeing for farmers.



METHODS

Cattle movements were specifically discussed in 27 face-to-face semi-structured interviews involving 29 dairy and beef farmers from both high and low bTB incidence areas of NI. They formed a sub-sample of the larger group of farmers interviewed for the overall study.

The participants were specifically asked about, or spontaneously offered, their opinions on cattle movements as part of a wider-ranging interview on bTB control. The interviews were audio-recorded, fully transcribed using f4 transcription software (audiotranskription.de), and coded in NVivo (Version 9; QSR International Ltd.).

RESULTS

- 17% of the farmers interviewed kept a completely closed herd, mainly for disease control reasons. Others suggested that the closed herd scenario was unrealistic and impractical: 'Ideally, closed herd. But that isn't an option ... You can't wrap a farm completely in cotton wool' (Int A58, dairy farmer).

- 55% tried to keep the herd mostly closed and bought animals irregularly, and this was most likely to be a breeding bull. Despite best intentions, sometimes the aspiration of a no-purchase policy was spontaneously over-ridden: 'I went to the market one day to buy a bull and I came home with a cow [Laughs]. I just saw the cow, and I gave big money for her' (Int A2, dairy farmer).

- 28% bought cattle regularly, particularly beef farmers. One explained why market purchases were better than private ones from individual farms: 'You could go to ten farmers, and you could find one that has the type of animal I'm looking for ... It gives me the choice - they are in front of me, they are there in the ring' (Int A7, beef farmer).



- For some farmers, the economic rationale strongly favoured purchasing rather than rearing their own stock: 'This year I went and bought 230 beef suckler heifers, and I couldn't produce them for the price I paid for them' (Int A38, beef farmer). A dairy farmer imported dairy heifers from the Netherlands using the same economic argument.

- Dairy farmers tended to be more cautious about purchasing cattle, were less likely to attend markets, and more wary of buying from multiple sources: 'I wouldn't buy cattle from a market - I would buy from a known source. I wouldn't go out and buy a cow from here and a cow from there. I bought from a herd - I'm careful that way' (Int A58, dairy farmer).

- Despite knowing the risk of introducing bTB into the herd, farmers were often willing to take the risk. Some suggested that if cattle were for sale then they were obviously from bTB-free herds, and believed that farmers were not acting unreasonably in purchasing them: 'If the animals have been under annual bTB test ... they are taking them in good will' (Int A58, dairy farmer).

- For one farmer, if the animal looked healthy, that was enough to seal the deal: 'I wouldn't know the hidden health behind the animal, but an animal that looks sick or an animal that looked as if it hadn't thrived, I wouldn't buy those. But as regards hidden health issues, you can't see them - they don't talk to you and tell you' (Int A7, beef farmer).

- A few were keen to point out that closed herds had bTB outbreaks too, and this helped to rationalize their open herd policy: 'I would be ... buying from everybody under the sun in markets, and the vast majority of the time I have no problem with bTB, and yet my neighbours right round me - mostly dairy farmers, mostly self-contained units - often have problems. How is that?' (Int A58, beef farmer).

- Somewhat ironically, severe bTB breakdowns forced affected herds to purchase cattle to re-stock after de-restriction when they would otherwise have been closed. This had introduced other endemic diseases such as Johnes into previously clean herds: '[bTB] destroyed the herd ... We bought in animals, and we bought in disease, and ... it's just never been the same since' (Int A28, dairy farmer).

- The practice of trading cattle also has socio-cultural undertones. Farmers spoke of going to the market as a place to meet friends as well as a place to do business. Cattle dealers described the 'buzz' they got from bidding for cattle: 'I did enjoy it. I liked the banter of buying in the ring and privately around farms and selling them. Every one was a new challenge' (Int A21, cattle dealer).

DISCUSSION

Farmers are becoming more aware of keeping closed herds, but despite good intentions and knowledge of best practice, this position is not always maintained, and other factors often bear more weight in decision-making.

Cattle are purchased to meet short-term business needs, or as a means of rapidly expanding herd size to improve longer-term productivity. Other farmers buy cattle regularly, willing to take risks and rationalize them, and these herds are particularly at risk of introducing bTB. Adding to the complexity, visiting cattle markets is viewed by many as a socio-cultural activity - farmers value the social interaction it provides, and the opportunity to compare their cattle with those of their peers.

In conclusion, vets and policy makers need to engage with the cattle industry, recognising that trading is an integral part of the farming structure, but also providing evidence that keeping a closed herd improves biosecurity and helps to reduce the spread of diseases such as bTB. Given the complex combination of economic realities and longstanding cultural traditions, this is a difficult balancing act.

Qualitative social science research combined with quantitative epidemiological evidence will help to provide a more robust and in-depth understanding of the issues and their possible solutions (Cook, 2013). Indeed, it could be argued that neglect of the social science of bTB has contributed to policy failure.



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