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## The 'surplus' dairy calf: understanding dairy-beef supply chain relationships and the implications for calf welfare<sup>1</sup>

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**Key message:** Calves excess to requirements on dairy farms are increasingly being bought by calf-rearing enterprises. The relationship between dairy farmers and these calf buyers is relatively informal but is based on the reputation for supply of good quality calves, which has positive outcomes for calf health and welfare.

### Main Findings

- Excess dairy-origin calves are increasingly being sold into the beef supply chain, rather than being slaughtered at a young age. Calves are sold from the dairy farm of origin to dedicated calf-rearing enterprises or to calf procurement companies who distribute calves to farms
- We interviewed dairy farmers (calf producers), calf rearers and procurement companies to gain an insight into the basis of this relationship, calf care and information transfer. The implications for calf health and welfare were extracted
- Of those dairy farmers interviewed, the majority sold calves directly to calf rearers, which likely reduces transport time and mixing between groups of calves, which may be detrimental for health and disrupts social bonds of calves
- Farmers do not like the term 'surplus calf'. They viewed these animals as a valuable economic part of their farming enterprises
- The relationship between calf producers and calf rearers is based on personal reputation and trust. Calf producers do not want to sell poor calves to calf rearers. As a result, calves destined for beef are more likely to receive the same standard of care and nutrition as other calves
- There is the potential for data on health status, vaccination records and growth to be transferred down the supply chain and for performance and health data to be fed back to the dairy farmer



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## Introduction

On dairy farms, calves must be born for dairy cows to go on to produce milk for sale. However, it is estimated that only 30% of these female calves are required to stay on the dairy farm to be reared as the next generation of dairy cows. Thus all of the male calves and those females calves not needed as 'replacement' animals are not always retained on the farm, and must be marketed elsewhere.

The advancement in breeding technology, now sees dairy farmers selectively using sexed semen to breed replacements from their best cows. Using sexed semen gives them a 90% chance of having a female calf. They can then breed the rest of their cows to beef thereby creating a calf much more suitable for the beef market. Nearly 60% English beef originates from the dairy herd. Some farms act as dedicated calf-rearers and may buy calves directly from the dairy farms or from markets. Some larger calf procurement companies also exist that buy dairy-origin calves to rear for beef.

However, there is no formalised system to facilitate the sale of calves from dairy farm to calf rearer enterprises. This study aimed to assess the relationship between dairy-origin calf producers and the calf rearing industry. We also wished to further understand some of the issues that might directly affect calf welfare, such as farmer attitude to these calves, calf care and the potential for transfer of information (e.g. weight, health status) that might allow better management to be used further down the chain.

## Methods

A series of interviews was held with key players across the initial stages of the dairy-beef supply chain: (i) five dairy farmers (i.e. calf producers), (ii) seven calf rearers and (iii) two representatives from calf procurement companies were interviewed. The interviewees were asked about the relationship between farmers and rearers/procurement companies, what care is provided for the calves and whether any health- or production-related data is passed down the supply chain or fed back to the dairy farmers.

Although a relatively small number of key players in each group was interviewed, there was overall consensus in their responses; indicating that the results represent the industry

## Policy and Industry Implications

Dairy farmers did not like the term 'surplus' calf. They see these animals as being a valuable part of their dairy enterprise. About 80% of dairy farmers sold their calves directly to a calf rearer. Calf procurement companies tended to use collection centres where calves are moved from multiple farms to be grouped according to specific requirements such as breed and weight. Direct sales likely reduces the total transport time and reduces mixing between groups of calves, which is positive for health and welfare, but may reduce efficiency gained by grouping calves of similar weights or ages.

The relationship between the dairy farmer and the calf buyer is based on personal reputation and trust. The dairy farmers wish to maintain a good reputation with the buyers by providing them with healthy, well-grown calves. This benefits calves as these farmers stated that they give these calves the same standard of care as other calves, but practical experience suggests that this is not always the case.

There is the potential for a more integrated supply chain including a greater flow of data and information between farmers. Information on health, genetics and production is passed on from the dairy farmer to the rearers via casual conversation, but all buyers indicated that all of this information is valuable. Similarly, dairy farmers indicated that feedback on the performance of their animals was useful.

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