



The animal health implications of contract heifer rearing

TEAGASC researchers are leading a national four-year study into the biosecurity risks associated with an emerging collaborative farming enterprise – contract heifer rearing.

What is contract rearing?

Contract rearing (CR) involves sending heifer calves from their farm of origin to an external holding to be reared for an agreed fee and duration. As the Irish dairy industry adapts to milk production in the post-quota era, increasing emphasis is being placed on sustainable dairying practices. Maintaining high standards of animal health and welfare is an integral component of any sustainable livestock enterprise.

As the national herd continues to grow in size, the inevitable increase in stocking rates will exert pressure on land and labour resources. This has resulted in growing interest in collaborative farming enterprises. One such enterprise that has emerged is contract heifer rearing. According to the National Farm Survey, 5% of specialist dairy farmers participated in CR in 2015 (Kinsella and Curran, 2017). This figure is expected to rise in line with continued post-quota dairy herd expansion.

The benefits and pitfalls of contract rearing

In order for CR to succeed as a viable enterprise, there must be benefits for both the dairy farmer and the heifer rearer. For the dairy farmer, CR offers the potential to maximise productivity from limited resources.

For the rearer, CR offers the opportunity to supplement income using existing infrastructure and facilities. In addition, heifer rearing presents an opportunity for retired dairy farmers to continue their involvement in the dairy industry, offering expertise and experience without the same intensive labour requirements.

Biosecurity can be defined as the measures taken by herd owners to minimise introduction and dissemination of disease within the farm. Movement of animals is the most important route for transmission

and spread of disease, however, and hence contract heifer rearing may pose a major challenge to herd biosecurity. With CR, heifers from multiple source farms may be co-grazed and housed, with potential resultant transmission of infectious agents. Subsequent re-introduction of these heifers to their pathogen-specific naïve source herd may result in disease breakdown.

Knowledge gap

At present, there is a knowledge gap surrounding CR practices in Ireland, particularly in relation to the possible associated biosecurity risks. To address this, a Teagasc/UCD study began in spring 2018 with the aim of assessing the biosecurity implications of CR in Ireland. The study will follow the performance (health, fertility, productivity) of home- and contract-reared heifers from birth to first lactation. This longitudinal study will identify biosecurity risk factors associated with CR, and also examine their associations with the health status of the source and rearing herds/farms.

Demographics of contract rearing in Ireland

A total of 120 farms were recruited after using animal movement data records and a national public awareness campaign to identify suitable herds. These herds comprised 67 source dairy farmers sending heifers to contract rearers, and 53 control farmers rearing heifers at home. During spring 2018, each farm was visited and approximately 6,500 heifer calves >2 days old were identified, weighed and health-scored. In addition, blood, nasal and faecal samples were taken as required.

On average, source dairy farms had more heifers (67 heifer calves/herd) than control farms (43 heifer calves/herd). The most

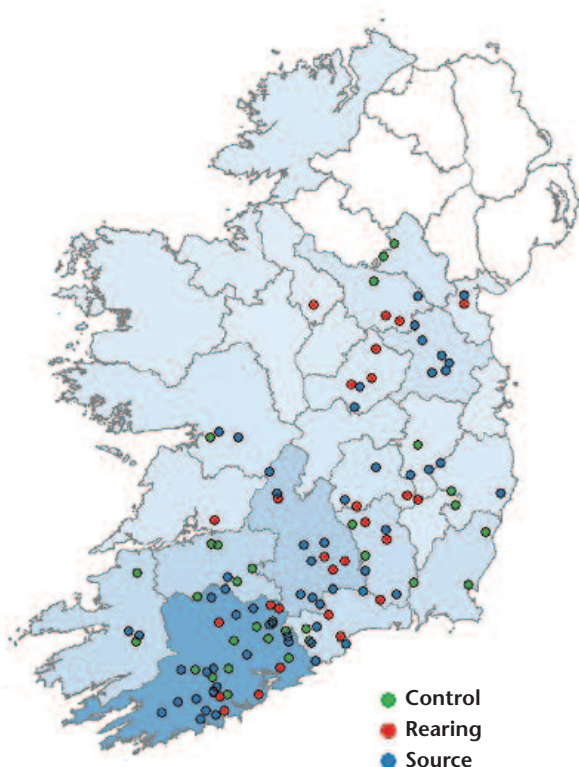


FIGURE 1: Location of source, control and contract rearing farms nationally.

common CR arrangement was one source dairy farmer: one contract rearer (67%), followed by two source dairy farmers: one contract rearer (30%). The majority (75%) of source dairy farmers sent heifers to a contract rearer in the same county (Figure 1), and almost half of source dairy farmers (48%) were located in Co. Cork. The majority (53%) of source dairy farms sent their heifers out for rearing between two and four months of age, and the majority (56%) expected to bring them back between 18 and 21 months of age (Figure 2).

Conclusions to date

Heifers being sent for CR are most likely to:

- originate from larger than average herds;
- be sent for rearing between two and four months of age, to a contract rearer within the same county; and,
- return from contract rearer at 18-21 months of age.

Further farm visits and data collection will characterise the management and biosecurity practices, and animal health, production and fertility outcomes associated with CR, and the implications of these findings for national herd biosecurity.

Reference

Kinsella, A. and Curran, T. (2017). 'Contract rearing – who are the farmers signing up?' *TResearch*, 12 (1): 36-37.

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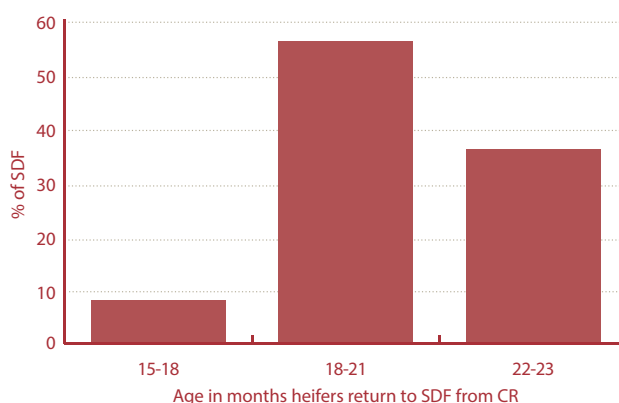
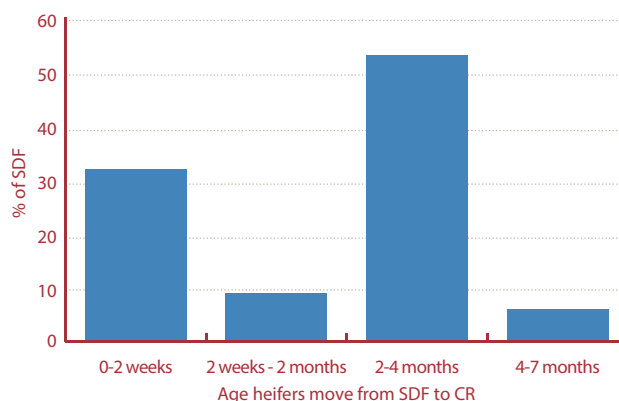


FIGURE 2: Age that heifers leave (top) and were expected to return to source dairy farms (bottom). SDF = source dairy farms.

with farm visits and data management, our project collaborators in AHI, DAFM, ICBF, Teagasc KT, UCD and the University of Ghent, and the farmers who are participating in the study.

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