Main Findings

- The traditional practice of grazing milking cows throughout the summer with no additional feeding was carried out by 31% of surveyed farmers. A higher proportion of farmers (38%) were feeding their milking herd indoors during the summer and a continually housed dairy system was found to be implemented on 8% of surveyed farms.

- Herd size was found to be larger in dairy systems that incorporated indoor feeding and/or indoor housing compared to those farms that practiced summer grazing.

- Herd size increases combined with changes in traditional dairy feeding and housing practices are of interest because irrespective of system type the care and management of cows should be of a high standard. Modern facilities of a sufficient quality are required so that a high level of animal husbandry can be maintained.

- Increasing indoor feeding may lead to an increased footprint of farm buildings and replacement of grazing land with buildings.

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Introduction

British dairy farmers currently supply over 11.5 billion tonnes of raw milk annually and the UK has ranked within the top ten global milk producers for at least the last 50 years\(^5\). Over the last two decades the number of dairy farms and the total number of dairy cows in Britain has dwindled by 60% and 35%, respectively, however these reductions have been offset by rising average yields which have increased from 4700 to over 7000 litres per cow since 1980\(^6\). Despite these changes within British dairy farming, published information relating to current feeding and housing practises is sparse. To assess the prevalence of dairy production methods in Britain, SRUC researchers conducted a survey of UK dairy farmers.

Methods

Data was collected from 6% of dairy farms across Britain (n=863) by CIS (Cattle Information Service) milk recorders. The survey was designed so that each respondent could self categorise their feeding and housing management style by answering a series of questions. Variables relating to herd size, county location and breed type were captured and results were collated in Excel. Three management type groups generated by the survey responses were analysed, and these groups loosely corresponded to key UK dairy system types identified by DairyCo\(^7\). The management style groups generated by survey were: (1) Grazing: farmers who grazed their milking cows in summer with no indoor feeding (n=247); (2) Indoor Fed: farmers who fed their milking cows indoors during the summer months (n=301); and (3) Indoor housed: farmers who continually housed their milking cows whilst lactating (n=61). Statistical analysis was carried out using SAS software, boxplots were generated (Figure 1) and Chi-squared tests were applied to determine whether relationships existed between the management type groups and the response variables.

Policy Implications

Dairy farmers in Britain are increasing their herd sizes and some are modifying their production methods to provide targeted nutrition to their animals, thereby generating higher yields with fewer greenhouse gas emissions and greater profits. Greater numbers of animals on farm being housed for longer has implications at animal, farm, and regional levels. Housing animals for longer periods is best practiced with up to date housing that maximises cow comfort and modern milking facilities, operated by farmers with high levels of animal husbandry skills. Failing in these areas could compromise the welfare of dairy cows. Training, education and knowledge transfer may be required by farmers, vets and other industry stakeholders in order to manage these changes and gain insights from research and technology. A dairy farm operating with increased housing may require new and additional housing in the form of larger temperature controlled sheds, feed storage areas (sheds or silage clamps) as well as slurry storage facilities. The consequences are that the footprint of buildings on the farm will increase and the use of land adjacent to the farm may change as permanent grasslands could be replaced with crop rotations if the farmer moves away from a grass based diet to satisfy the needs of heavier, higher yielding cows.

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\(^6\) DairyCo. 2014. Datum, Producer Numbers.  
\(^7\) DairyCo, 2012. Profiting from efficient milk production: Key findings of the Milkbench+ dairy benchmarking programme regarding the efficiency of dairy production in Britain. DairyCo, part of AHDB. Warwickshire.