Follow up research into expansion in British dairy herd size
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Introduction

In 2012, figures requested from Defra and the Scottish and Welsh Governments for the completion of Amy Jackson's Nuffield Farming Scholarship study into 'Can we Learn to Love the Megadairy?' indicted around 6.9% of Britain's dairy cows were in holdings of 500 cows or more.

These 2011 census figures have been updated with 2012 and 2013 census figures to show the trend of dairy herd expansion across Scotland, England and Wales.

2011-2013 data on herd sizes

Dairy size bands (number cows)	England Holdings (2013)	England Number of Dairy Cows	Scotland Holdings (2013)	Scotland Number of Dairy Cows	Wales Holdings (2013)	Wales Number of Dairy Cows	Britain Holdings (2013)	Britain Number of Dairy Cows
>=40 and <100	2,724	192,468	199	14,748	624	44,176	**3,547**	**251,392**
>=100 and <200	2,958	416,247	468	68,410	641	91,001	**4,067**	**575,658**
>=200 and <500	1,379	385,691	315	88,744	360	99,836	**2,054**	**574,271**
>=500 and <1000	108	69,023	37	24,253	34	22,389	**179**	**115,665**
>1000	10	12,101	7	10,403	6	7,934	**23**	**30,438**
Total	**7,179**	**1,075,530**	**1,026**	**206,558**	**1,665**	**265,336**	**9,870**	**1,547,424**

Dairy size bands (number cows)	England Holdings (2012)	England Number of Dairy Cows	Scotland Holdings (2012)	Scotland Number of Dairy Cows	Wales Holdings (2012)	Wales Number of Dairy Cows	Britain Holdings (2012)	Britain Number of Dairy Cows
>=40 and <100	2,886	204,265	217	16,251	641	45,208	**3,744**	**265,724**
>=100 and <200	3,104	437,444	489	72,518	678	96,091	**4,271**	**606,053**
>=200 and <500	1,333	374,038	308	86,629	353	98,982	**1,994**	**559,649**
>=500 and <1000	86	55,027	36	22,925	26	17,433	**148**	**95,385**
>1000	10	11,753	7	10,144	6	7,897	**23**	**29,794**
Total	**7,419**	**1,082,526**	**1,057**	**208,467**	**1,704**	**265,611**	**10,180**	**1,556,604**

Dairy size bands (number cows)	England Holdings (2011)	England Number of Dairy Cows	Scotland Holdings (2011)	Scotland Number of Dairy Cows	Wales Holdings (2011)	Wales Number of Dairy Cows	Britain Holdings (2011)	Britain Number of Dairy Cows
>=40 and <100	3,164	225,196	228	16,711	659	46,535	**4,051**	**288,442**
>=100 and <200	3,188	448,625	522	76,603	697	98,218	**4,407**	**623,446**
>=200 and <500	1,281	355,794	313	87,971	353	97,458	**1,947**	**541,223**
>=500 and <1000	80	51,868	28	18,159	23	14,869	**131**	**84,896**
>1000	5	6,132	6	8,706	6	7,418	**17**	**22,256**
Total	**7,718**	**1,087,614**	**1,097**	**208,150**	**1,738**	**264,498**	**10,553**	**1,560,262**

Includes all cows and heifers in milk, cows in calf but not in milk, heifers in calf for the first time 2 years old and over and females for breeding 2 years old and over that are of a dairy breed.
Exclues holding of fewer than 40 cows

Discussion

Holdings with fewer than 40 cows were excluded because the average number of cows in these herds was 6, indicating that most will not be commercially-run herds. However, of the remainder, 6.9% of cows were in holdings of 500 cows or more in 2011; this rose to 9.4% - almost 10% – by 2013.

Overall, herd size has continued to expand, with the average – by these figures – increasing by almost 10 cows per holding (148 to 157) over two years. At the same time, the number of cows in holdings of 200 cows or fewer has fallen from 58% to 53%, fast approaching the 50% mark.

While these figures show an ongoing trend for growth in herd size, there is no evidence of large herds 'pushing out' small herds. Indeed, the 2013 DairyCo/Andersons report 'The structure of the GB dairy farming industry – what drives change?' found:

- the trend of declining producer and cow numbers combined with increasing herd size and yields has occurred in most of the major dairying countries, with some declining faster than the UK
- there is no evidence that larger units are forcing smaller units out. While larger units have the potential to make a higher level of profit as a direct consequence of potential economies of scale, they don't necessarily do so. There is a range of profit levels among farms of all sizes, which is more a function of management than of size
- while milk price is an important and high profile economic indicator, it is only one of the influences on business profitability and no significant link was found between milk price and the rate of exit from the industry. Producers receiving a higher milk price were not found to be any more likely to expand than other producers.

These findings are supported by the annual DairyCo intention surveys; none of the producers surveyed mention competition from larger scale neighbours as a threat and, indeed, succession and milk price are most commonly cited as reasons for considering quitting milk production. The trend for expansion is likely to be underpinned by smaller herds expanding to fill space left by exiting producers. Furthermore, Milkbench+ data reports equally profitable potential net margins from small and large scale herds – unquestionably, small farms can be very profitable but may choose to expand to gain further economies of scale, and small unprofitable farms are likely to have the capital to expand out of necessity.

Conclusions and recommendations

It is likely herd size will continue to grow and the number of cows in holdings of over 500 cows will rise further. Despite this, there are still very few holdings of over 1,000 cows. As concluded in 'Can we Learn to Love the Megadairy?', land availability and density of population are likely to prevent any wholescale shift to dairy farms of this scale in Britain such as in some areas of the US, although it is likely that a handful of farms with around 3,000 cows will develop at some point.

Anecdotal evidence suggests that in large-scale herds currently in existence, some cows are housed year-round and some are specialist grazing units. As herd size continues to rise, it is likely that more systems will become either specialist housing or grazing to allow better use of resources and ensure cows have sufficient daily nutrient intake.

For this reason, it is important the industry promotes the range of dairy farming systems in Britain and familiarises consumers with them, and is supportive of all well-managed farms where animal welfare and high operational standards are a priority. Current efforts by some groups to undermine housed systems in particular run the risk of not just groundlessly demonising good farmers, but of potentially overlooking any poorer welfare on farms that otherwise have a favoured production system.

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