



Valuing the Certificate of Quality at Holstein UK

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The Holstein UK and British Friesian Cattle Herdbook has registered animals since 1909. The modern Holstein UK continues to operate the Herdbook, as well as owning a milk recording company (CIS) and operating a classification and data company (NBDC). NBDC provides Herdbook registration and database services to 7 other dairy Herdbooks in the UK and classification services to 20 dairy and beef Herdbooks.

ICAR certification for animal ancestry and phenotype recording provides a modern guarantee of quality for customers of Holstein UK. Data customers of Holstein UK include farmers, genetic evaluations services, auctioneers, AI companies, government, and other commercial companies. All these rely on the Herdbook to provide up to date and accurate information for use in genetic and genomic evaluations, sales, traceability and even breed conservation. Our core customers are farmers, who face greater demands on time than ever before. They need the Herdbook to operate accurately and efficiently when recording their animals' data, to continue adding value to their businesses into the future.

Historically challenges to the accuracy of the Herdbook were limited. In 2022, about 20% of calves registered in the Herdbook were genomic tested – a figure that is growing each year. Most of the genomic testing in the UK is done by multinational companies, whose commercial goals do include accurate parentage recording. About 5% of Herdbook females are declared to have a different genomic parent after they have been pedigree registered. This is a challenge for both Holstein UK and ICAR animal recording.

The Holstein UK Herdbook has been in existence since 1909 and incorporates two breeds, Holstein and British Friesian. In 2022, 185,000 female calves were registered in the Herdbook, a similar level to that seen in recent years (see Figure 1). Conversely, the number of male calves registered has fallen dramatically in recent years (Figure 2), probably due to the increase in use of sexed semen by breeders.

Holstein UK is also the parent company for CIS and NBDC. The former provides milk recording and health testing to UK farmers. NBDC provides Herdbook services to seven other dairy breed Herdbooks and conformation scoring (classification) to twenty dairy and beef cattle Herdbooks in the UK.

Abstract

Introduction

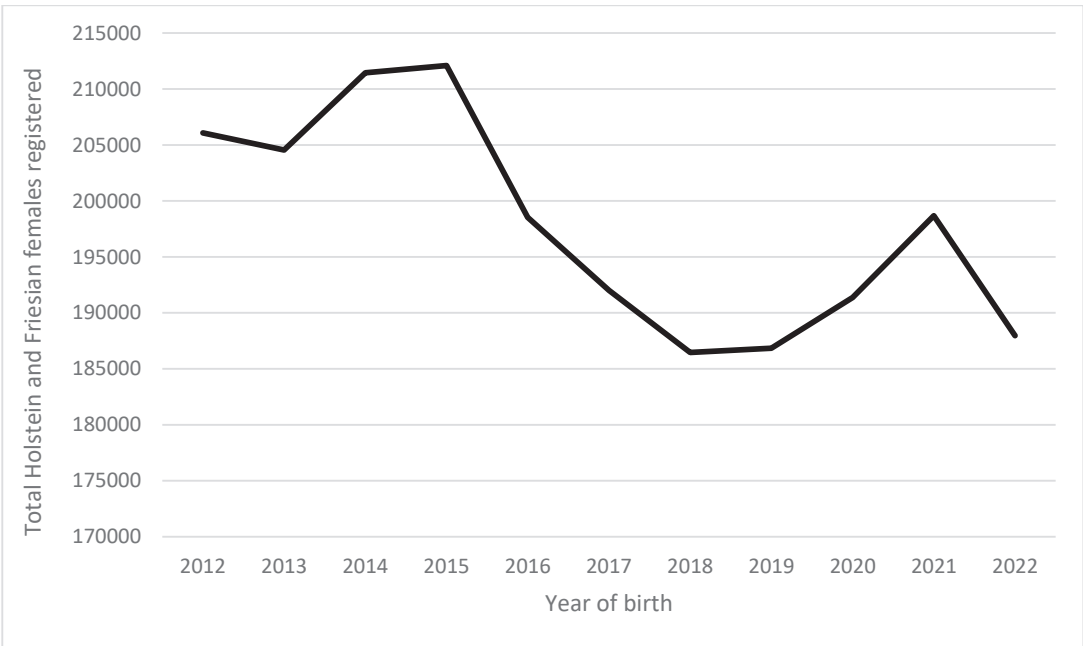


Figure 1. Total annual registrations of females in the Holstein UK Herdbook.

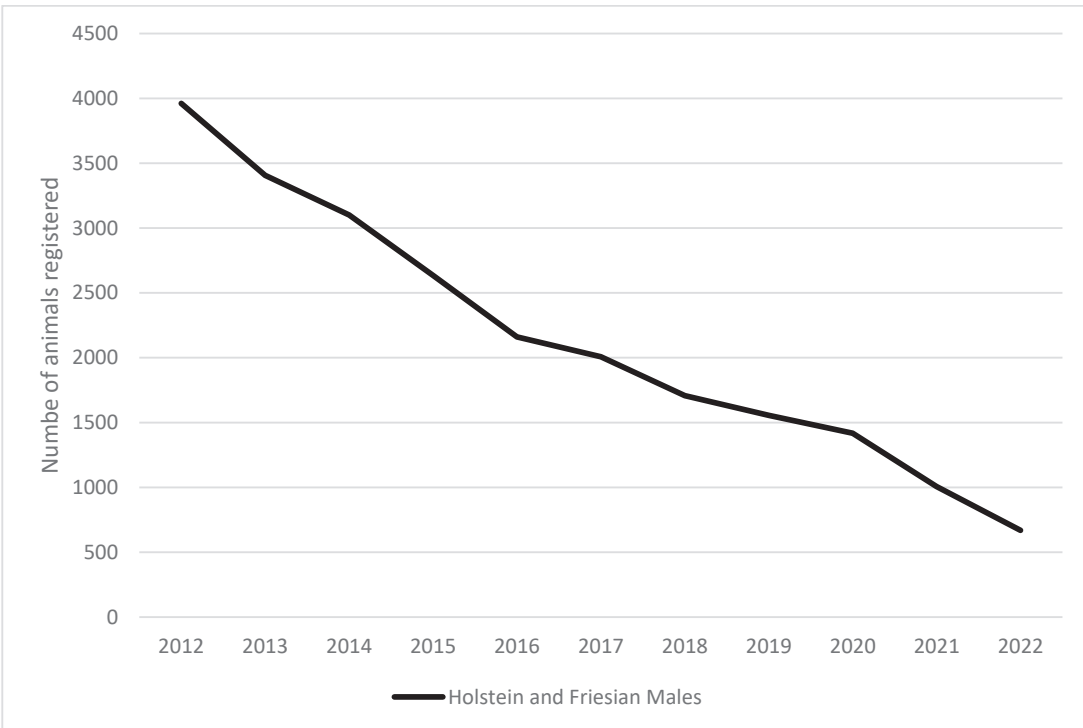


Figure 2. Total annual registrations of male calves (excluding AI bulls) in the Holstein UK Herdbook.

As well as the core function of Herdbook registration, Holstein UK also engages in promotional (including Herdbook shows), social and educational activities for breeders.

As well as providing paper and electronic registration certificates for breeders, online data (including Ancestry, lactation, classification and genetic evaluation results) are freely published for animals registered in the last fifty years. Data is also provided to other industry partners including genetic evaluations services, auctioneers, AI companies, government, and other commercial companies. Where data is packaged (collated) for commercial companies, a fee is payable to the Herdbook.

Holstein UK is certified by ICAR for Herdbook functions involving animal identification, Herdbook recording, conformation recording and data processing. As such Holstein UK's customers (breeders and industry partners) should expect the Herdbook to accurately record and process data.

Awareness of ICAR among breeders is probably low. However, they likely have an expectation that the Herdbook will operate to high standards and assume that it will be certified by an appropriate organisation (such as ICAR).

Value derived directly from CoQ is more likely gained from (collated) data sold to industry partners, among which awareness of ICAR is higher. Although the financial reward for this is relatively small, about 0.5% of total Holstein UK group revenue, it is sufficient by itself to cover the cost of CoQ many times over.

A current challenge to the accuracy of Herdbook data comes from genomic parentage conflicts. These can arise when Herdbook registered animals are genomic tested, commonly by an outside company. The genotype for UK born animals is usually sent to (either or both) the national UK and North American genetic evaluations, operated by AHDB and CDCB respectively. Their processes may discover that one or both parents is incompatible with the genotype attributed to the animal.

About 20% of females, registered in the Holstein UK Herdbook and born in 2022, were also genomic tested. Only a quarter of those were tested via the Herdbook, with the remainder tested via mainly large international companies. It is not uncommon for a conflicting ancestry of a Herdbook female to be published online. Genomic selection is a fast-moving world and breeders adopting this tool value quick delivery of results, often via the use of online applications. Keeping up with this pace is both a challenge and an opportunity for Herdbooks and by extension to ICAR certification standards.

Herdbook functions

Value of CoQ

Challenge