



Valuing the Certificate of Quality at Holstein UK

Darren Todd
24/05/2023



Overview of talk



- Introduction to Holstein UK
- Herdbook key activity – data
- Value of Certificate of Quality (CoQ)
- Example of a challenge facing Herdbook re data

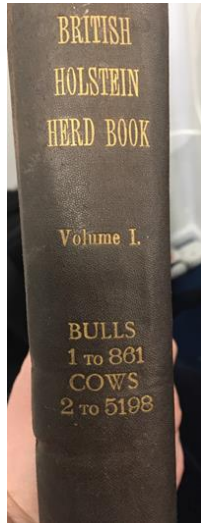
Introduction Holstein UK

- Herdbook since 1909
- Holstein UK
 - Holstein and British Friesians
- CIS milk recording
- NBDC services to other breeds
 - Herdbook database
 - Registrations services
 - Classification/Conformation
 - 20 breeds dairy and beef breeds

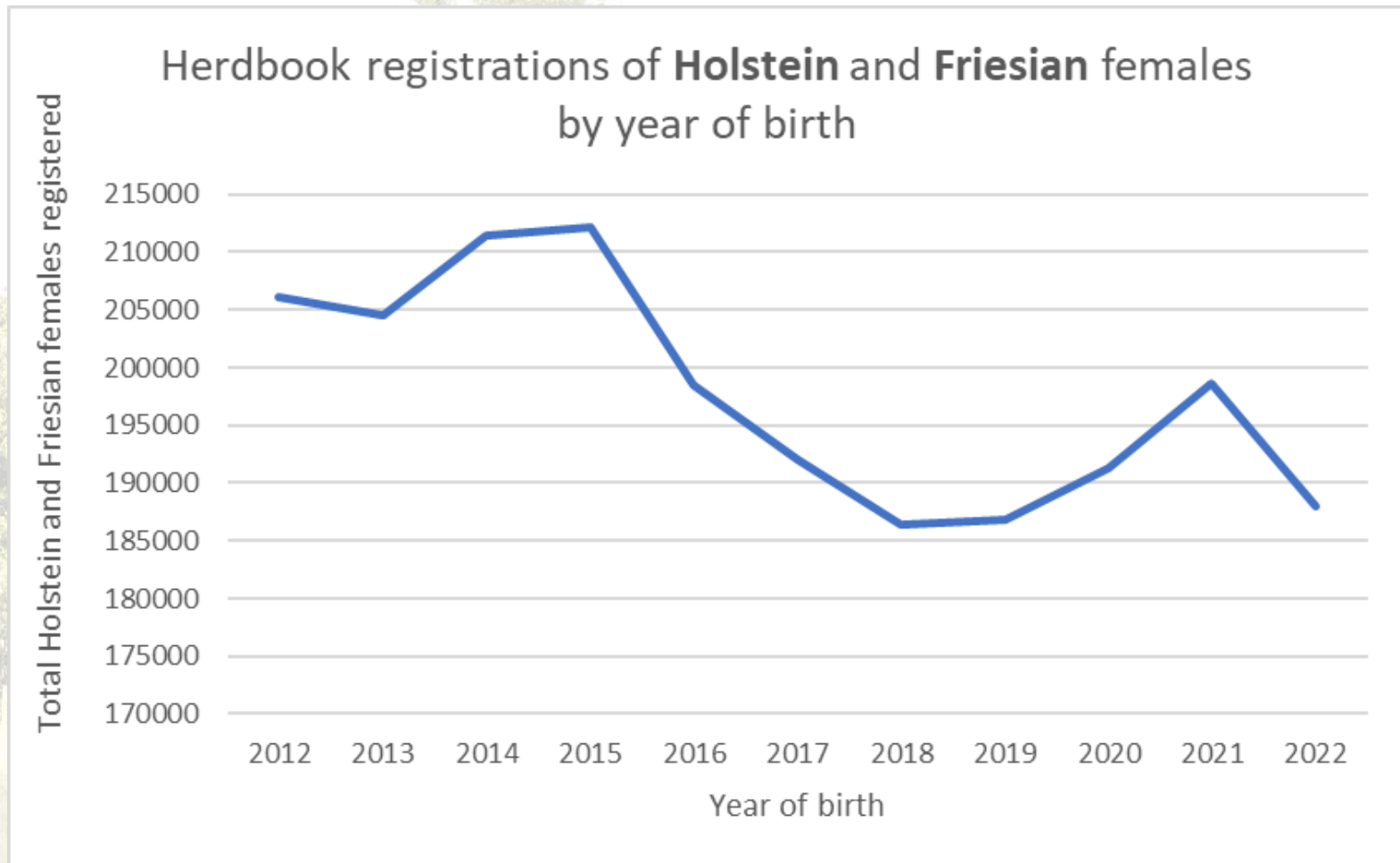
The screenshot displays the holstein UK website interface. At the top, the logo 'holstein UK' is visible alongside navigation links for Home, Search, and Members Area. Below the logo, a horizontal menu lists various sections: The Society, News, Events, Awards, Animal Search, Animal Data, Services & Info, Sales Centre, Clubs, and More. The main content area is divided into several sections:

- Member Services:** A section titled 'Member Services' with a sub-header 'Member Services' and a paragraph describing the range of services available to members, including the Membership Handbook, rules and Judges Lists, and a link to the Herdbook.
- Services:** A section titled 'Services' with a sub-header 'Services' and a list of services including: Become a Member, Wedding, Registrations, White Heart/Quick Tip, Genetic Testing, Bull Selector, Washline, Virtual Cow, QR, Clouse, Animal Search, Type Classification, FHM Recording & Health Testing, Approved Equipment Centre, Information, and Holstein UK Downloads.
- CIS Laboratory:** A section titled 'CIS Laboratory' with a sub-header 'CIS Laboratory' and a paragraph describing the laboratory's services, including milk recording, genetic testing, and conformation analysis.
- Welcome to the Cattle Information Service:** A section titled 'Welcome to the Cattle Information Service' with a sub-header 'CIS PregCheck:' and a paragraph describing the service's role in providing information and support to cattle breeders.
- THE NATIONAL BOVINE DATA CENTRE:** A section titled 'THE NATIONAL BOVINE DATA CENTRE' with a sub-header 'THE NATIONAL BOVINE DATA CENTRE' and a paragraph describing the centre's mission to record conformation data in cattle and publish this alongside ancestry, genetic evaluation and milk records for use in improving UK cattle production.

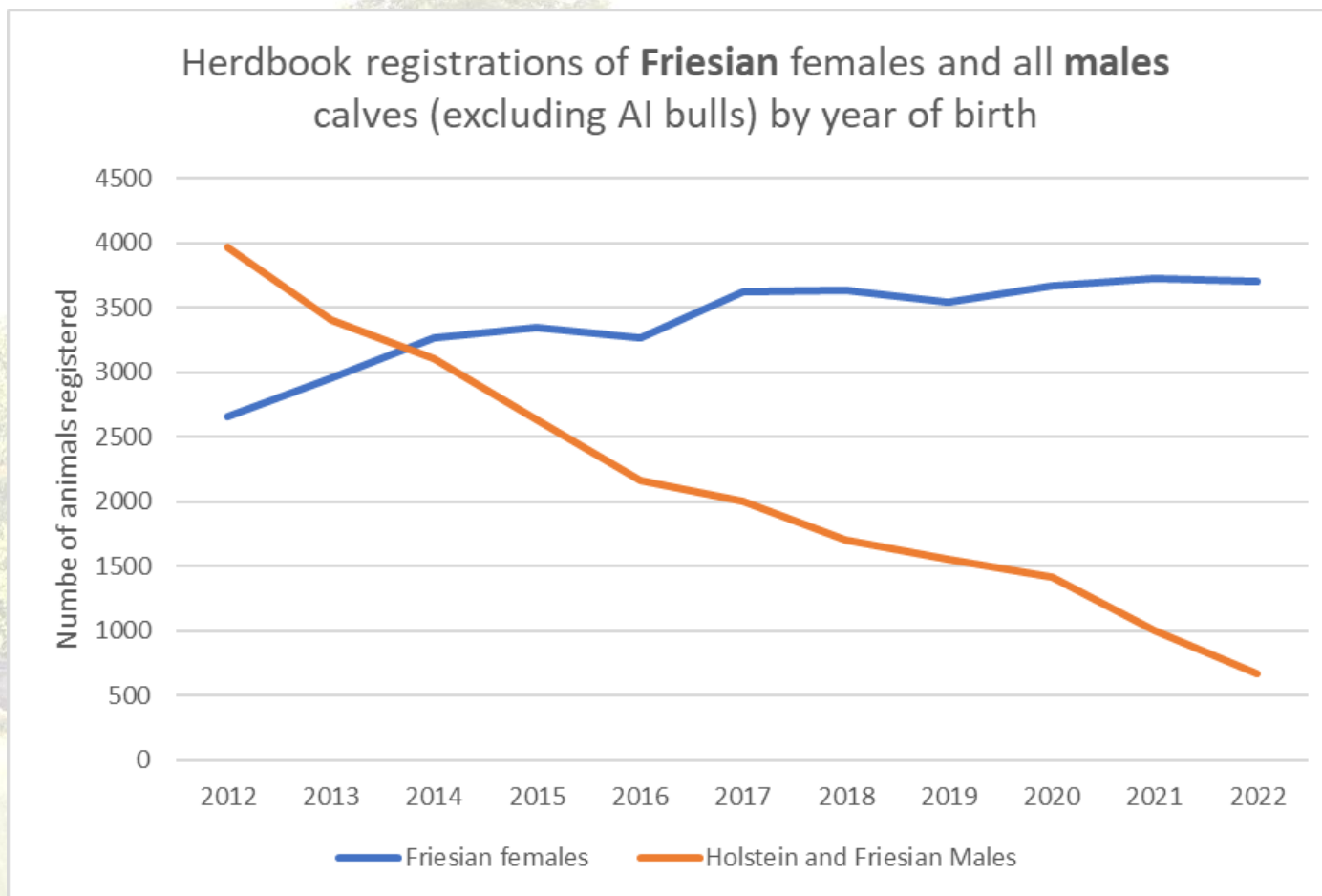
At the bottom of the screenshot, there are several featured images and links: 'PEDIGREE CERTS', 'ANIMAL SEARCH', 'PRODUCTION TRENDS', 'BREEDING INFO', and 'PARTNERS'.



How 'healthy' is the Herdbook?



Friesian females increasing but Holstein and Friesian males are disappearing!





What does a Herdbook do?



- Record births, names and animal ancestry
 - Provides animal Herdbook Certificates (Zootech cert)
 - Classification/Conformation recording
 - Promotion of breed and member activities (journal/shows)
 - Social function
-
- **Data collection key activity**
 - A lot of that data is published mainly for breeders to refer to
 - also provided to other companies in the dairy industry (sometimes £)
 - **Accuracy of the data is important!**




Publishing data – ancestry

1 Y 42904833

Registration Certificate

for the black and white pure-bred female



Farm Id
3653

BOGHILL GLAMOUR CAPTAIN CR CARLIN M ET
DNA N31112435
IB 01949027836535

Owner and Breeder: S M MCCOLLUM, 7 BOGHILL ROAD, COLEERANE, COUNTY LONDONDERRY, BT52 2NT

Embryo Transfer
Identified by Ear Tag no:
UK915057836535
Born 2 Aug 2021

Date registered 14 Sep 2021

<p>Jointly bred by: GLAMOUR</p> <p>GENOUSOURCE CAPTAIN ET A2A2 650007434956</p> <p>PTA2023 Milk Bf Pz PII Apr23 +968 +46.0 +33.2 +6888 ProdR1 78% +0.08% +0.01% PLIR1 74% LP -1.19 3A +2.03</p> <p>TM 1.93 R1 72% (Apr23 *ITB+G*) 1 - VG</p>	<p>HURTGENLEA RICHARD CHARL ET A2A2 65000074345956</p> <p>PTA2023 Milk Bf Pz PII Apr23 +901 +37.4 +25.1 +6479 ProdR1 87% +0.01% -0.05% PLIR1 85% TM -0.01 R1 78% (Apr23 *ITB+G*) 1 - VG</p> <p>GENOUSOURCE SABRE 32223 ET 65000337839368 VG85 12gensVGEX</p> <p>PTA2023 Milk Bf Pz PII Apr23 +517 +30.9 +19.4 +5523 ProdR1 73% +0.12% +0.03% PLIR1 59%*Genomic PI*</p>	<p>DG CHARLEY ET (DEU) 60000538920253</p> <p>HURTGENLEA YODER MODESTO ET 65000074345903 VG86 7gensVGEX</p> <p>1 2/1 13366 305 4.50 642 3.10 433 0</p> <p>FARNEAR TANGO SABRE 1973 ET A2A2 65000072596748</p> <p>PEAK MENNA AHEAD 850 ET 65000312547808 EX91 10gensVGEX</p> <p>1 1/10 12738 296 3.30 421 3.40 434 0 3 3/10 15821 305 3.90 617 3.20 506 0 8V 486C 13264 302 3.93 515 3.25 504 0</p> <p>DE-SU 13050 SPECTRE ET 650003130010295</p> <p>ENDCO RUBICON CORA ET 65000312094448 VG86 10gensVGEX</p> <p>1 2/1 11657 284 4.10 478 3.36 392 0 2 3/0 12107 280 3.90 472 3.47 420 0 3 3/11 13866 278 4.70 562 3.36 402 0 4 4/11 16066 305 5.00 803 3.30 530 0</p> <p>PINE-TREE VERONA ET 65000074024960</p> <p>BOGHILL GLAMOUR SUPERSHOT CARLIN ET 01949027102877 GP81 SP, 12 STARS</p> <p>1 3/2 13117 305 3.91 513 3.54 464 139</p>
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ICAR

<p>Registration Certificate</p> <p>for the black and white pure-bred female</p>	
<p>BOGHILL GLAMOUR CAPTAIN CR CARLIN M ET DNA N31112435 IB 01949027836535</p> <p>Owner and Breeder: S M MCCOLLUM, 7 BOGHILL ROAD, COLEERANE, COUNTY LONDONDERRY, BT52 2NT</p>	<p style="text-align: right;">Embryo Transfer Identified by Ear Tag no: UK915057836535 Born 2 Aug 2021</p>
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holstein-uk.org/animaldata/animal/ancestry/42904833

uk/ani... | Holstein UK | Male Factsheet | HUK inbreeding | HUK_DNA | FDO Analysis | OpenHR 9.2 | HUK - Files - ownCl... | GeneSeek - U

Home > Animal data > Ancestry page

BOGHILL GLAMOUR CAPTAIN CR CARLIN M ET PLE 955 (Bib: 5/9)

01949027836535

Date of Birth: 02/08/2021
Ear tag: UK915057836535 (SP)
Pure-bred: 100 % (No)

Inbreeding %: 11.8
Maternal Lineage

GENOUSOURCE CAPTAIN A2A2

Site: PLE 888 (Bib: 74)

050003147118734 TM 1.93 (Bib: 72)

BOGHILL GLAMOUR CRIMSON V CARLIN C

Site: PLE 692 (Bib: 60)

01949027114201

DG CHARLEY
60000538920253

Potential grandire
HURTGENLEA RICHARD CHARL A2A2
65000074345956

HURTGENLEA YODER MODESTO
65000074345903

Let: 1 1296 226 44 11

FARNEAR TANGO SABRE 1973 A2A2
65000072596748

Paternal grandire
GENOUSOURCE SABRE 32223
65000337839368 VG85

PEAK MENNA AHEAD 850
65000312547808 EX91

Let: 2 1972 226 29 13
3 1822 226 29 12

DE-SU 13050 SPECTRE
650003130010295

Maternal grandire
ABS CRIMSON A2A2
650003141494296

ENDCO RUBICON CORA
65000312094448 VG86

Let: 4 1656 226 5 13
2 1207 220 29 147

PINE-TREE VERONA
65000074024960

Maternal grandire
BOGHILL GLAMOUR CRIMSON V CARLIN C
01949027102877 GP81

BOGHILL GLAMOUR SUPERSHOT CARLIN
01949027102877 12 STARS SP GP81

Let: 1 1317 305 391 154

Type Proof Data Supplied by Holstein UK | Production Proof Data Supplied by AHDB
Whilst every effort is made to ensure the accuracy of information in this document, no responsibility can be accepted thereto.

<p>BOGHILL GLAMOUR CAPTAIN CR CARLIN M ET</p> <p>IB 01949027836535</p> <p>Age at last calving: Inbreeding %: 11.8</p> <p>Site: PLE 955 (Bib: 5/9)</p> <p>Ear tag: UK915057836535 (SP)</p> <p>Pure-bred: 100 % (No)</p>	
<p>GENOUSOURCE CAPTAIN A2A2</p> <p>Site: PLE 888 (Bib: 74)</p> <p>050003147118734 TM 1.93 (Bib: 72)</p>	<p>BOGHILL GLAMOUR CRIMSON V CARLIN C</p> <p>Site: PLE 692 (Bib: 60)</p> <p>01949027114201</p>
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<p>Inbreeding %: 11.8 Maternal Lineage</p>	
<p>Home > Animal data > Ancestry page</p>	
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<p>FARNEAR TANGO SABRE 1973 A2A2 65000072596748</p> <p>Paternal grandire GENOUSOURCE SABRE 32223 65000337839368 VG85</p> <p>PEAK MENNA AHEAD 850 65000312547808 EX91</p> <p>Let: 2 1972 226 29 13 3 1822 226 29 12</p>	
<p>DE-SU 13050 SPECTRE 650003130010295</p> <p>Maternal grandire ABS CRIMSON A2A2 650003141494296</p> <p>ENDCO RUBICON CORA 65000312094448 VG86</p> <p>Let: 4 1656 226 5 13 2 1207 220 29 147</p>	
<p>PINE-TREE VERONA 65000074024960</p> <p>Maternal grandire BOGHILL GLAMOUR CRIMSON V CARLIN C 01949027102877 GP81</p> <p>BOGHILL GLAMOUR SUPERSHOT CARLIN 01949027102877 12 STARS SP GP81</p> <p>Let: 1 1317 305 391 154</p>	



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Arthur van Schendelstraat 650, 3511 MJ Utrecht, Netherlands

CERTIFICATE OF QUALITY

Holstein UK Group

Animal identification in cattle; Milk recording in cattle; Herdbook recording;
Conformation recording; Data processing; Laboratory milk analysis

Martin Burke
ICAR CE

Utrecht, 20 September, 2022

Certificate number: 2022/06

Valid up-to: September 2027

Value of CoQ to Herdbook



- Certification – should be about trusting our data is accurate
- Probably - CoQ more important for companies seeking Herdbook data
- Because - certification of other companies gives us more assurance about the quality of their data
- Anecdotally - Herdbook member farmers less aware of ICAR (problem?)
- **Conclusion, one value of certification comes from selling data**

Example of a challenge to data accuracy

- Parentage conflicts from genomic testing
- **After** animal has been registered in Herdbook
- Problem especially with animals which did not require parentage check due to Herdbook rules
- 20% of Herdbook females born in 2022 were G tested (only 5% by the Herdbook)
- About 5% parent conflicts (lot of herd variation)
- Problem if **ancestry published online**
- A lot of UK females are G tested in North American
- Current policy is to investigate the conflict



Genomic pedigree

- Potentially more accurate source of pedigree if there has been no Id/sample mix up
- Level of checking not faced by other ‘animal recording methods’
- Can identify problems all up the chain of data
- Challenge for Herdbook and ICAR CoQ
- Risk for Herdbook to remain best (quickest) source of pedigree
- Open to suggestions on how to deal with this!

Summary

- Holstein UK Herdbook collects and disseminates a lot of data
- One example of CoQ value is in data exchange
- Genomics challenge to Herdbook data
- Next page

Henry Richardson 1954- 2023

