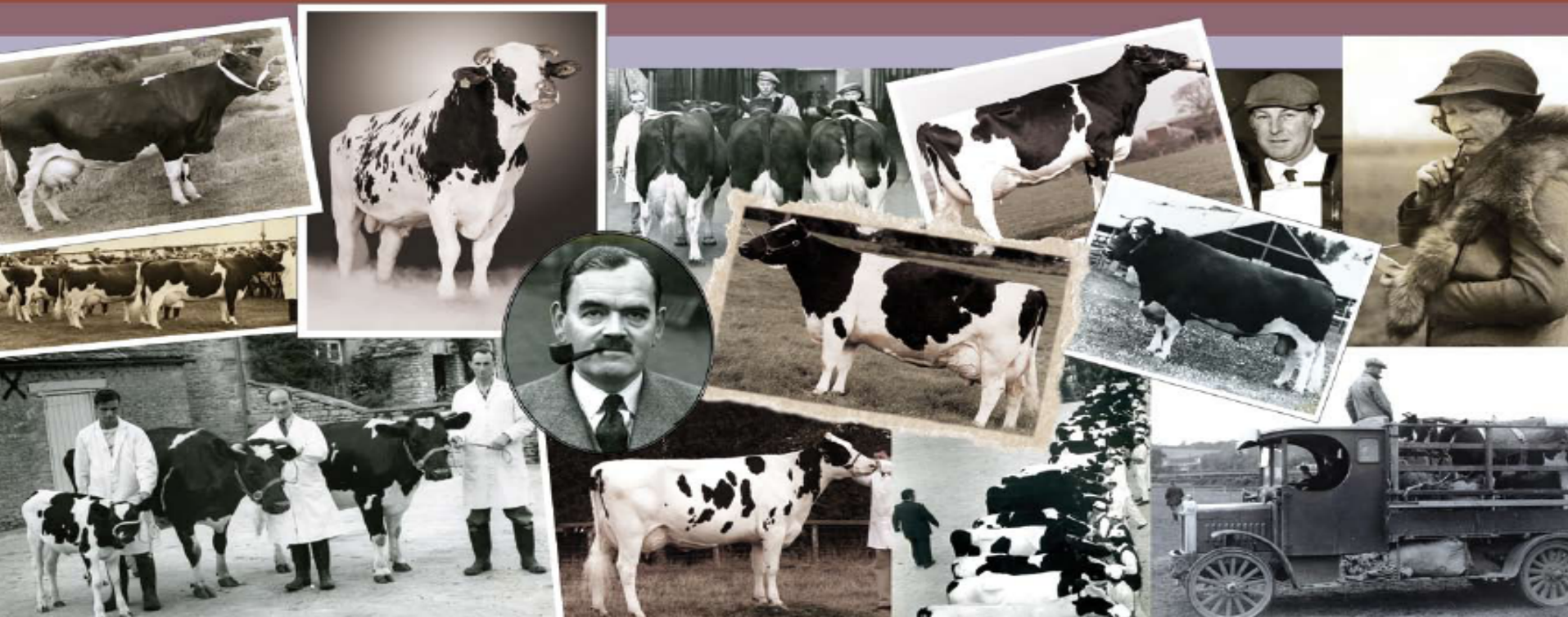


holstein UK
holstein & british friesland

HOLSTEIN UK & BRITISH FRIESIAN 1909-2009



Milk Recording & Herd Health



The Virtual Cow



Centre for Dairy Information



Multi-breed Registrations



Breeding Bull Choice



Young Breeders Club



Cow Mating Choices



Why a Virtual Cow?



1. Limitations of the 'Model Cow'
2. Need for an educational tool
3. Availability of technology

Virtual Cow is available from
these web sites:

www.holstein-uk.org

www.thehyb.co.uk

A simple, PIN-protected login
controls user access



The screenshot shows the 'Members Section' login page for holstein UK. It features a 'Please Log In' form with a 'Prefix' field containing 'Scotshill' and a 'PIN' field with six dots. A blue arrow points from the text 'Enter your prefix and PIN number & click Login' to the Prefix field, and another blue arrow points from the same text to the PIN field. Below the PIN field is a 'forgot PIN?' link and a 'Login' button. A note at the bottom states: 'Note: You will be logged out automatically if after 30 minutes you have done nothing'. The footer reads 'Holstein-UK. All Rights Reserved.'.

holstein UK
holstein & british friesland **for profitability**

Home | Society - Centenary | Animal Data | News | Sales |

Members Section

Please Log In [Help](#)

Prefix:

PIN:

[forgot PIN?](#)

Note: You will be logged out automatically if after 30 minutes you have done nothing

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Two Sections

The 'Ideal'
Cow

Individual Trait
Scoring



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Holstein UK is Europe's largest independent breed society. It offers a range of services to the dairy farming industry targeted at improving the genetics and profitability of the Holstein breed. British Friesians continue to be registered in the herdbook with percentages of Friesian clearly denoted.

Breed societies have traditionally been associated with registering births and ancestry, promoting the breed, and increasing the value of your livestock. But at Holstein UK, this is just the tip of the iceberg. Over the past decade, the Society has built up a portfolio of services designed to improve your breeding decisions along with the quality, profitability and herd-life of your dairy cows.

The Ideal Holstein Cow
Learn More >

Individual Scoring Traits
Learn More >

You can choose to view either the 'Ideal Cow' or select to view individual traits

The Ideal Cow

16 linear trait scores
+ Locomotion
+ Body Condition

These are easily adjusted as
concepts evolve to suit
changing perceptions or
breed preferences

The Ideal Cow

Score

Stature	7
Chest Width	5
Body Depth	7
Angularity	7
Rump Angle	5
Rump Width	7
Rear Legs Set	6
Foot Angle	5
Fore Udder Attachment	7
Rear Udder Attachment	9
Central Ligament	8
Udder Depth	5
Front Teat Placement	5
Rear Teat Position	5
Teat Position	8
Teat Length	5
Locomotion	9
Body Condition Score	5

Individual Scoring Traits
learn more >



CONTROLS - Click and drag LEFT mouse button to rotate cow. Click and drag RIGHT mouse button to zoom.

The cow rotates 360° through any axis to view all features from all perspectives

[Return to Start](#)

The Ideal Cow

Score

Stature	7
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Rear Teat Position	5
Teat Position	8
Teat Length	5
Locomotion	9
Body Condition Score	5

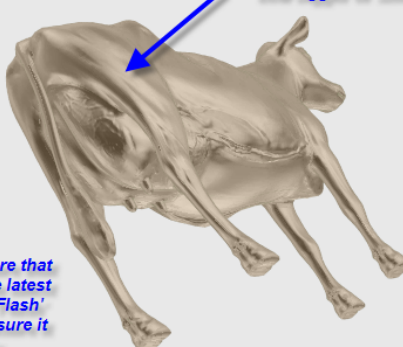
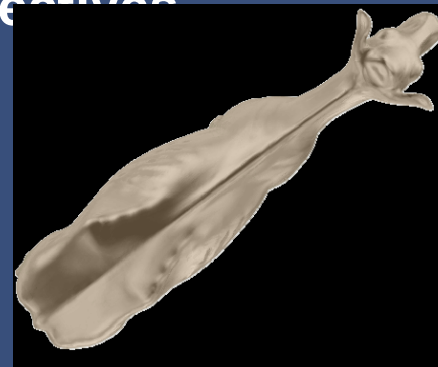
Individual Scoring Traits

[Click here to go to individual traits](#)

Tip: Make sure that you have the latest version of 'Flash' player to ensure it works

CONTROLS - Click and drag LEFT mouse button to rotate cow. Click and drag RIGHT mouse button to zoom.

You can click on the cow and spin it around to view every angle or you can right click and drag to make the cow bigger or smaller

Why not black and white?



- Two years development
- Silver provides best light and shade effects to portray a 3-dimensional object on a 2-dimensional plane
- Eliminates shading due to colour bands that hide detail
- Also means the VC can be easily adapted to other preferences or breeds

Individual traits

16 Linear Type trait scores:

Stature	Chest Width
Body Depth	Angularity
Rump Angle	Rump Width
Rear Legs Side	Foot Angle
Fore Udder Att.	Rear Udder Height
Central Ligament / Udder Support	Front Teat Place.
Udder Depth	Teat Pos. Side
Rear Teat Pos.	
Teat Length	

+ Locomotion

+ Body Condition

18 traits represented in total

Individual Scoring Traits

Click and follow the icons to view the scoring traits in more detail.

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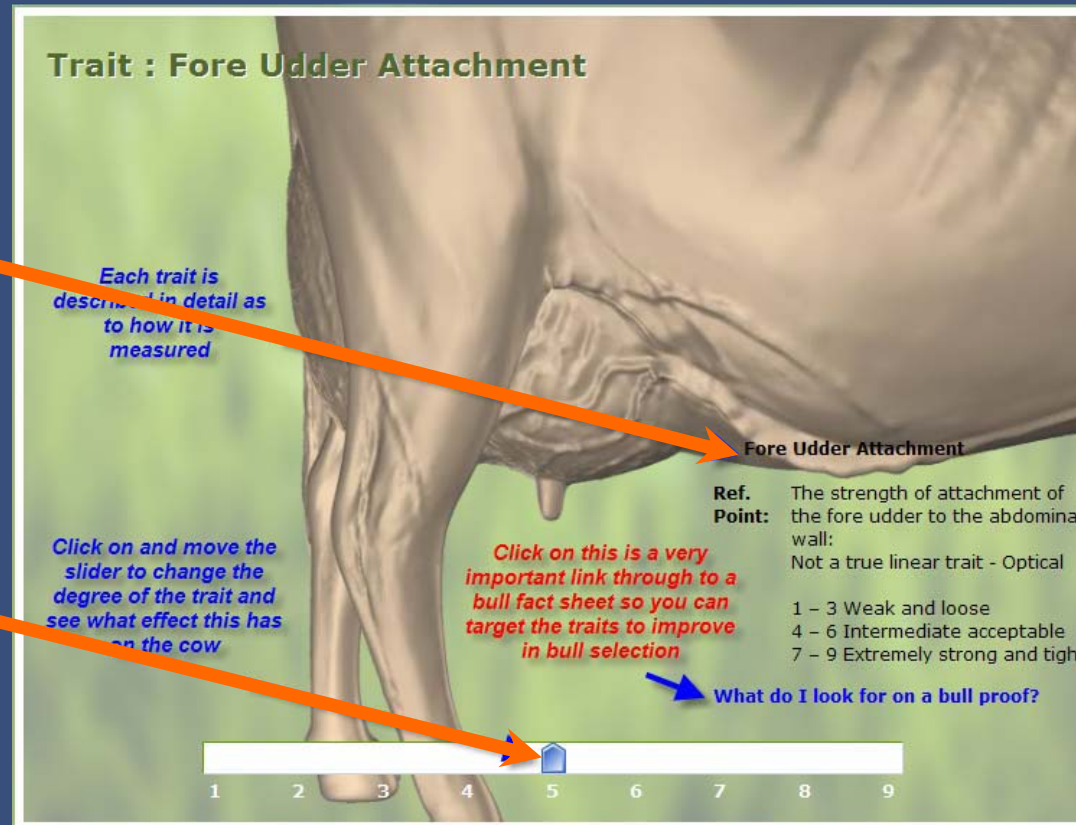
The Ideal Holstein Cow
Learn More >

Example Trait: Fore Udder Attachment

Each trait is described in detail with an explanation of its own linear scores.

Moving the slider changes the feature to match the trait score. All trait scores are covered. So the effect these have on the cow's appearance can be seen.

Direct links to bull fact sheets enable sires to be targeted who can enhance the desired objective



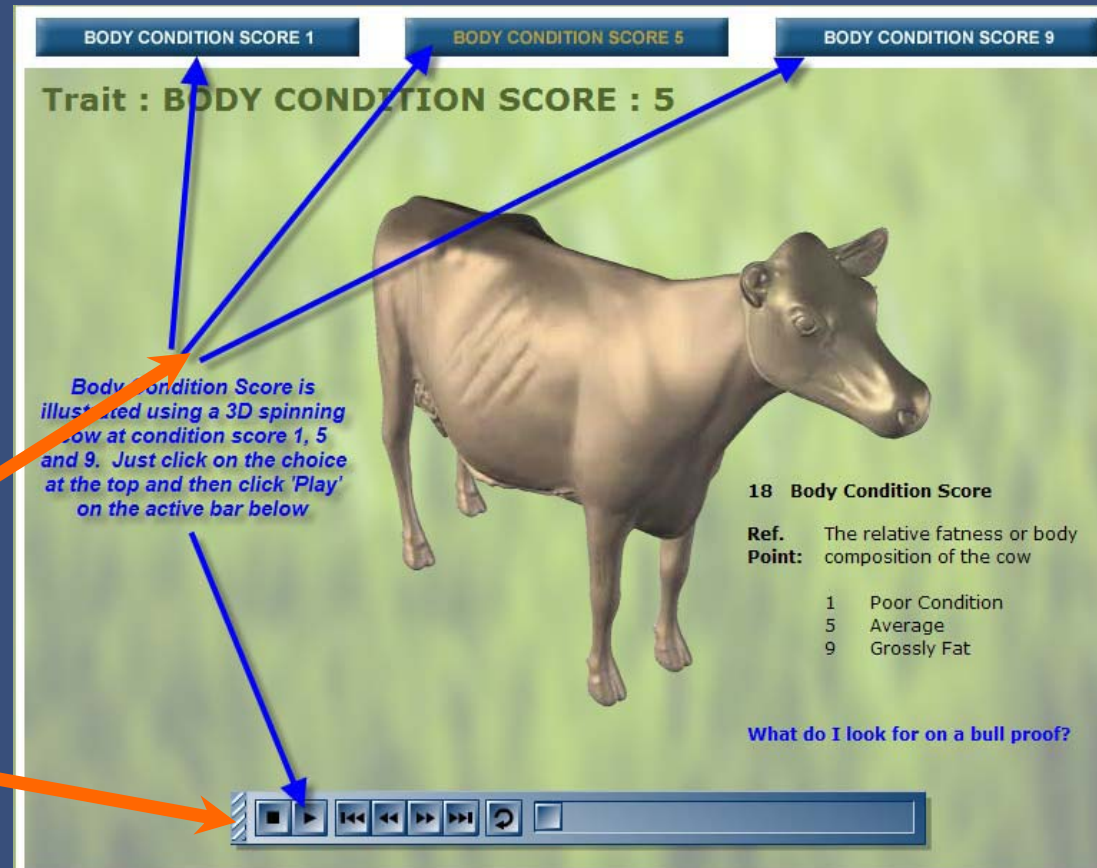
Individual traits

- Each trait can be modelled in the Virtual Cow to reflect exactly how the daughters of a particular bull might look like in life
- Any linear score can be translated into a 3-D image

Type Proof										
UK Type Proof		PTAT2010 (4/10)			1477 Dtrs(UK)		492 Hds(UK)		99% Rel	
Trait		-3	-2	-1	0	+1	+2	+3		Value.
Type Merit	Poor								Excellent	3.09
Mammary	Poor								Excellent	2.33
Legs & feet	Poor								Excellent	3.12
Stature	130 cm								154 cm	2.78
Chest width	Narrow								Wide	-1.35
Body depth	Shallow								Deep	0.87
Angularity	Coarse								Open Rib	1.92
Rump angle	High pins								Low pins	0.15
Rump width	Narrow								Wide	0.42
Rear leg side	Straight								Sickled	-1.16
Foot angle	Low								Steep	1.56
Fore udd att	Loose								Tight	2.08
Rear udder ht	Very low								Very high	2.72
Udder supp	Broken								Strong	2.02
Udder depth	Below hock								20cm above	1.71
Front teat pl	Outside								Close	0.08
Teat length	Short								Long	0.78
Rear teat pl	Apart								Close	0.68
Teat pos side	Close								Apart	-0.2
Temperament	Poor								Good	0.57
Ease of milk	Slow								Fast	1.94
Locomotion	Poor								Excellent	3.65
Cond Score	Low								High	-1.49

Body Condition

- Body Condition is illustrated using a series of 3D cow animations – each similar to the Ideal Cow.
- Three scores are available, at the extremes and centre of the range 1-9.
- The cow rotates and can be paused, so the impact of each score on different parts of the body can be seen easily.



Locomotion

- Locomotion is illustrated via a series of 30-second full-motion video clips.
- Each video depicts a specific locomotion score.
- The viewer can select a score and play, pause or repeat the video.
- The detailed meaning of each score is explained in an audio soundtrack.



17 Locomotion

Ref. Point: The use of legs and feet, length and direction of the step

- 1-3 = Severe Abduction – Short Stride
- 4-6 = Slight Abduction – Medium Stride
- 7-9 = No Abduction – long stride

E.G.: “Cow 198 scores an ‘8’ and demonstrates very good locomotion.
But to score a perfect ‘9’ would need her right hind leg to track a little better.”

Benefits

- Can be used in a wide variety of locations
- Does not require large numbers of live cows
- Allows numeric scores to be visualised interactively
- Promotes better understanding of linear scores
- Breeders can assess a bull on the structure of his daughters
- Changes in traits are easy to follow
- Helps bull selection and breed improvement
- Caters for all preferences

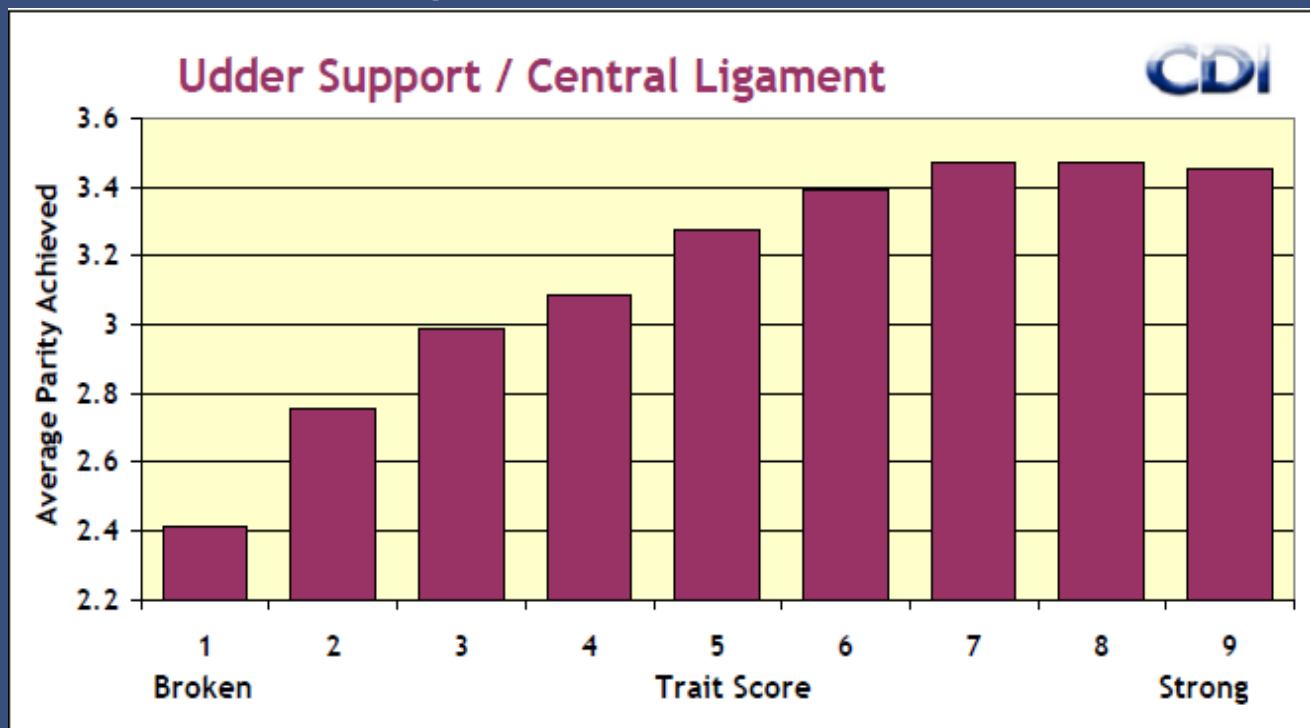
Potential Users

- Educational colleges and Universities
- Individual students and teachers
- Breeders and breeder's families
- Milk recording organisations
- Breed associations
- Breeding advisors
- AI companies

Suggestions for The Future

- Demonstrations on your laptop today?
- On-line licensing / Stand alone version
- Further institutions, individuals and companies
- User's own "ideal cow"?
- Effects of trait score on herd life

Effect of Type Score on herd life



- a chart for every trait incorporated into the Virtual Cow

Some current Educational & other users:

- **University College Wales (Aberystwyth)**
- **Llyfasi College**
- **Scottish Agricultural College**
- **Institute for Animal Health**
- **Reaseheath College**
- **Greenmount College**
- **Royal Veterinary College**
- **Genus breeding**
- **Finnish Holstein Association**
- **Holstein Australia**

Finally:
one sector of our target audience – some Holstein Young Breeders





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**Thank You
Paldies**