

holstein UK  
holstein & british friesland

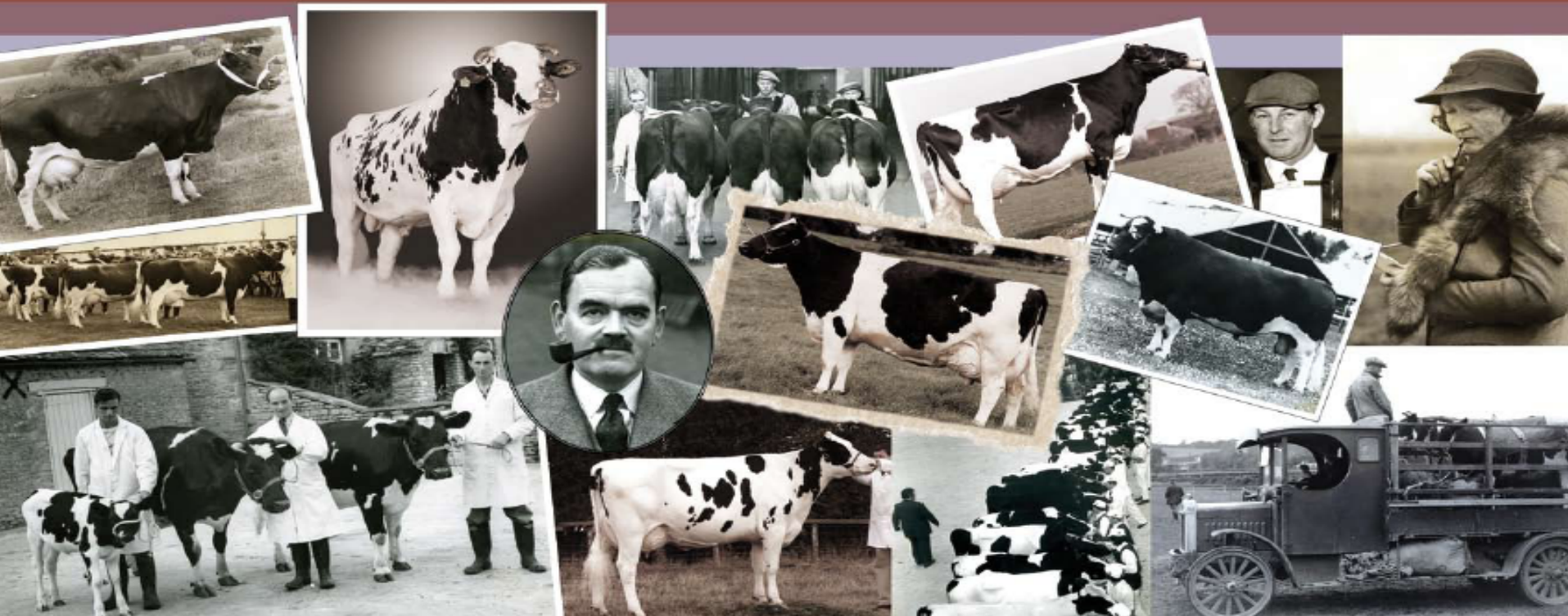


# 100 years of innovation

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## Centenary Scrapbook

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](http://www.holstein-uk.org)

[www.thehyb.co.uk](http://www.thehyb.co.uk)

A simple, PIN-protected login  
controls user access

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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

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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.

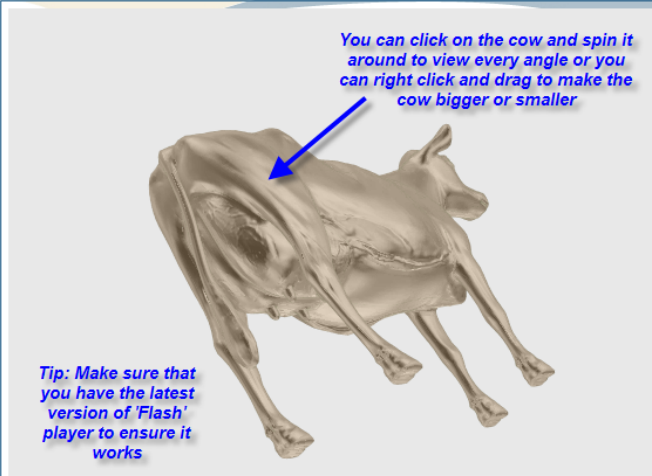
## The cow rotates 360° through any axis to view all features from all perspectives

[Return to Start](#)

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### The Ideal Cow

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Body Condition Score	5

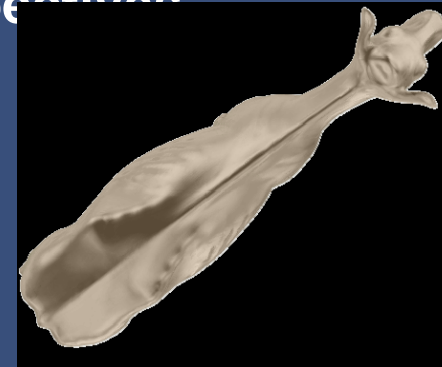


*You can click on the cow and spin it around to view every angle or you can right click and drag to make the cow bigger or smaller*

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

**Individual Scoring Traits**  
[View more >](#)  
 Click here to go to individual traits

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



## 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**



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**Individual Scoring Traits**

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

 STATURE	 REAR LEGS SET	 FRONT TEAT PLACEMENT
 CHEST WIDTH	 FOOT ANGLE	 REAR TEAT POSITION
 BODY DEPTH	 FORE UDDER ATTACHMENT	 TEAT POSITION
 ANGULARITY	 REAR UDDER HEIGHT	 TEAT LENGTH
 RUMP ANGLE	 CENTRAL LIGAMENT	 BODY CONDITION SCORE
 RUMP WIDTH	 UDDER DEPTH	 LOCOMOTION



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

**Trait : Fore Udder Attachment**

Each trait is described in detail as to how it is measured

Click on and move the slider to change the degree of the trait and see what effect this has on the cow

Click on this is a very important link through to a bull fact sheet so you can target the traits to improve in bull selection

**Fore Udder Attachment**

**Ref. Point:** The strength of attachment of the fore udder to the abdominal wall:  
Not a true linear trait - Optical

1 - 3 Weak and loose  
4 - 6 Intermediate acceptable  
7 - 9 Extremely strong and tight

**What do I look for on a bull proof?**

1 2 3 4 5 6 7 8 9



# 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.

BODY CONDITION SCORE 1    BODY CONDITION SCORE 5    BODY CONDITION SCORE 9

Trait : BODY CONDITION SCORE : 5

Body Condition Score is illustrated using a 3D spinning cow at condition score 1, 5 and 9. Just click on the choice at the top and then click 'Play' on the active bar below

**18 Body Condition Score**

**Ref.** The relative fatness or body composition of the cow

**Point:**

- 1 Poor Condition
- 5 Average
- 9 Grossly Fat

What do I look for on a bull proof?

# 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

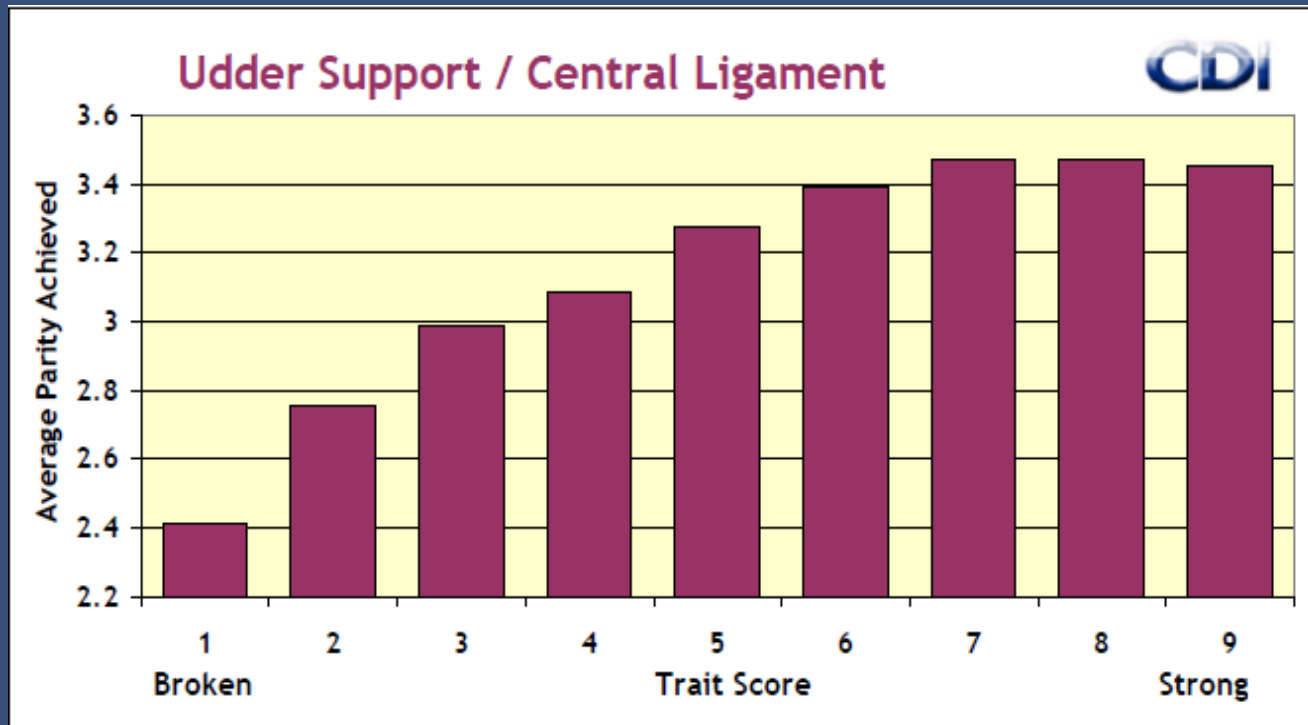
## Potential Users

- 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**