

# Understanding French Proofs

All the proofs calculated in France are expressed in genetic standard deviation, in relation to a **rolling value base of 0**.

The **CD** is the **degree of precision of the proof**.

The higher the CD, the more reliable the proof (REL=95, maximum accuracy, the bull has several thousand daughters).

The **ISU** is the reflection of French selection objectives, it is based on 3 major criteria:

**Production, Functionality, Morphology.**

$$\text{INEL} = 0.98 (\text{Prot} + 0,2 \text{ Fat} + \text{P}\% + 0,5 \text{ F}\%)$$



INEL (Economic Milk Index), is a formula whose aim is to rank bulls on production that maximises the net margin.

**51% PRODUCTION**

## FUNCTIONAL

It is the basis of modern selection. France is one of the only countries in the world to give reliable information concerning:

fertility, longevity, cell count, milking speed, temperament, calving ease and calving ability

**18% MORPHOLOGY**

The proofs are obtained from measurements and descriptions of the 19 traits of the daughters by approved by technicians the French Normand breed association.

- **Rump Angle:** + is sloped.
  - **Rear Leg Set:** + is posty.
  - **Udder Balance:** + is high rear quarters.
  - **Teat Direction:** + is internal.
- For all four criteria, "0" is optimum."

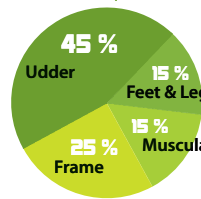
**8% Longevity**

**10% Fertility**

**13% Cell Count**

$$\text{Udder} = 25\% \text{ UD} + 20\% \text{ UB} + 20\% \text{ US} + 15\% \text{ FTP} + 5\% \text{ RUA} + 5\% \text{ TD} + 10\% \text{ FUA}$$

- Udder Depth (UD)
- Udder Balance (UB)
- Udder Support (US)
- Fore Udder Attachment (FUA)
- Front Teat Placement (FTP)
- Rear Udder Attachment (RUA)
- Teat Direction (TD)



### Feet & Legs

- Rear Leg Set

### Muscularity

- Rib
- Loin
- Rump
- Round

$$\text{Frame} = 30\% \text{ TW} + 25\% \text{ CD} + 20\% \text{ CW} + 15\% \text{ RL} + 10\% \text{ ST}$$

- Thurl Width (TW)
- Chest Depth (CD)
- Chest Width (CW)
- Rump Angle (RA)
- Stature (ST)
- Rump Length (RL)

- **Functional indexes:** Positive values are desirable for all; Fertility refers to daughters' fertility after calving.

- **Calving Ease and Calving Ability** averages equal 89. 90 is a better calving ease; 88 is less calving ease. Calving Ability is the daughters' ability to calve easily.
- Prices do not include shipping and insurance from Wisconsin. Straws are 1/4 cc. A 1/4 cc gun can be provided to you for \$25.00. Discounts are available for large orders. Express shipping via FedEx is also available.