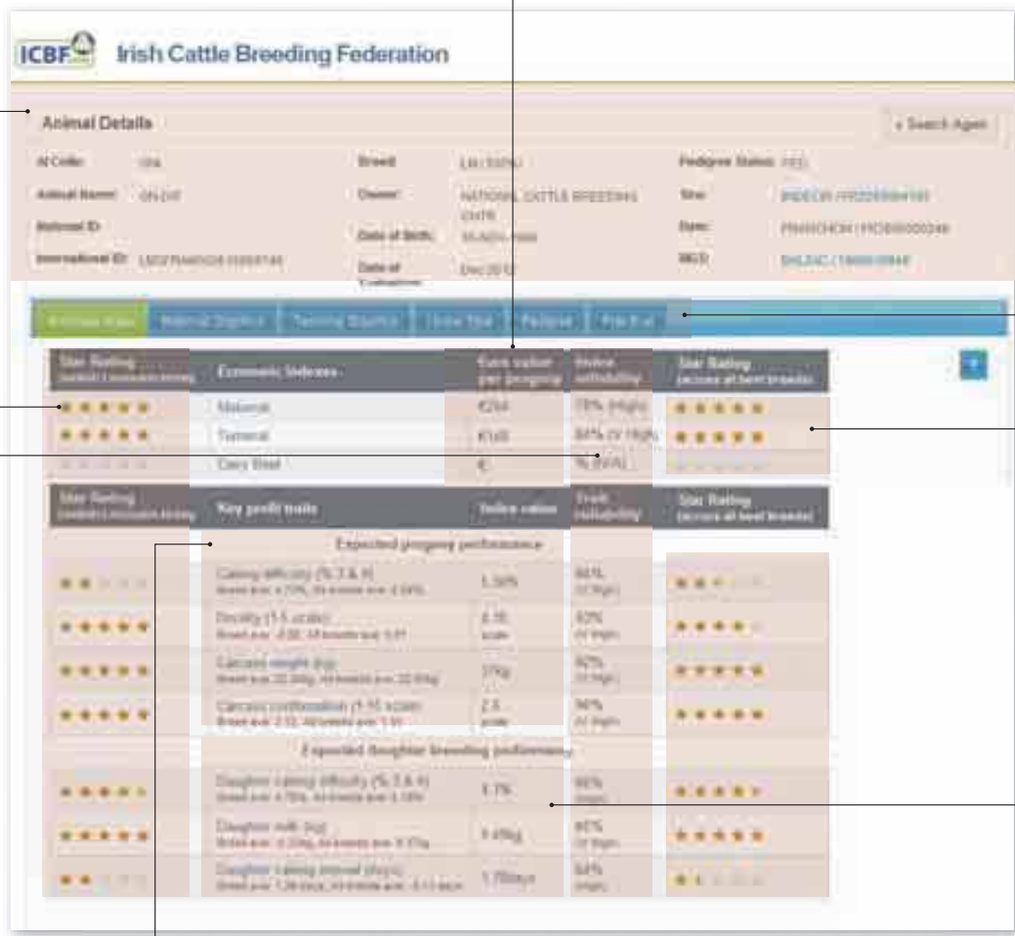
€URO-STARS Guide to the

€URO VALUE PER PROGENY
➲ Combined economic value of all the traits in each index.
➲ This means that on average, the bulls progeny will leave you €264 more than the average animal kept for breeding (maternal) or for slaughter would leave you with €148 more than the average (terminal).

ANIMAL DETAILS
➲ Name
➲ Breed
➲ Owner
➲ Back pedigree



STAR RATING WITHIN BREED
➲ The star rating within breed allows a farmer to compare the predicted progeny performance from that bull within its own breed. In this example the bull is 5 star within breed.
➲ Ratings are based from 1 star to 5 stars, 1 being poor and 5 being excellent.

TERMINAL AND MATERNAL INDEX
➲ Full set of traits that make up the indexes can be seen by clicking on the graphics button, where all of the traits are represented by bar charts.

STAR RATING ACROSS BREEDS
➲ This allows a farmer to compare projected progeny performance across all breeds.
➲ Ratings are based from 1 star to 5 stars, 1 being poor and 5 being excellent.

INDEX RELIABILITY
➲ This indicates how reliable the information is. The more data collected on a bull, the higher the reliability.
➲ The reliability is expressed as a percentage and is list from V Low to V High depending on the percentage.

EXPECTED DAUGHTER BREEDING PERFORMANCE
➲ Expected daughter performance (Maternal Traits).
➲ Daughter calving difficulty.
➲ Daughter milk.
➲ Daughter calving interval.

EXPECTED PROGENY PERFORMANCE
This is how progeny of the bull are expected to perform (Terminal traits)
1. Calving difficulty, gestation, mortality makes up 29% of the terminal index.
2. Docility makes up 3% of the terminal index.
3. Beef traits such as carcase conformation and feed intake account for the remainder.

Reliability % Guide

Range		Description
0-20%	Low	Very Low - Euro-Stars mostly based on Ancestry data
20-50%	Low - Medium	Euro-Stars are increasingly useful. Bull's own performance affecting figures.
50-95%	Medium - High	Euro-Stars increasingly based on progeny records.
>95%	High	Euro-Stars completely based on progeny records. Little change seen in Bull's evaluation figures.

Reliability % is an indication as to how confident we can be about the genetic evaluations for a particular bull. As more information is included in a Bull's genetic evaluation the reliability % of those genetic evaluation results increases.

revised beef evaluations

PAT DONNELLAN
ICBF

In late 2012 ICBF replaced the SBV index with two new indices. A third index for dairy beef stock will be available later in the year.

€URO-STARS BACKGROUND

The Irish Cattle Breeding Federation (ICBF) calculates the €uro-Star figures for beef cattle in Ireland. The ICBF database contains performance data (calving surveys, weights, deaths, movements etc) and Ancestry Records (Sires, Dams, relatives). Economic Values have also been calculated for all the traits and are stored in the database.

The €uro-Stars are the end result of a series of routine steps otherwise known as a genetic evaluation run. Without going into too much detail, a genetic evaluation run will identify all of the relatives of your bull and compares their performance records to those of their herdmates. It then applies the economic values to the data, as some traits are more valuable than others e.g. 'liveweight' is a more valuable trait than 'coat colour'.

It then expresses the results (breeding values) of this calculation in €uros as ultimately this whole process is describing how profitable (or not) progeny of a bull are. The actual €uro-Stars make these €uro values visually easy to understand. The better the €uro value the more stars the bull will have. The more progeny a bull has across numbers of herds the higher the reliability figure will be.

IMPROVEMENTS TO THE BEEF €URO-STAR EVALUATIONS

A number of improvements have been made to the €uro-Star figures over the last few months. Given the number of improvements being brought in it was decided to phase the evaluation changes in over the August and December runs so as all of the changes would be in place for the spring bull sales. They are the largest set of changes that have ever been made to the €uro-Stars and certain bulls' figures did change (dramatically in some instances) but given the access to new data as well as the need to update computer evaluation models, they were absolutely necessary. Following is a summary of the improvements that were made to the €uro-Star figures:

CALVING EVALUATION

1. New genetic parameters and correlations between traits.
- a. New Genetic correlations were calculated between calving ease, gestation and mortality.
- b. The heritability of direct calving ease has been dropped from 23% to 9%.
- c. The heritability of maternal calving ease was increased from 3% to 4%.
- d. The genetic correlation between direct and maternal calving ease was reduced from 0.72 to 0.22.

2. New traits have been included in the calving evaluation:
- a. Birth weight and early life weights
- b. BLUP Muscle and Skeletal figures
- c. Carcase weight and Carcase Conformation

3. Animals in groups of less than five are now being included in the evaluation for every trait.

4. Redefinition of contemporary groups:
- a. First-calving heifers are now included in contemporary groups on their own instead of previously being compared along with older cows.

5. Splitting of mortality from 'Birth to day 28' into 'Mortality day 0 to 5' and 'Mortality day 6 to 28'.

BEEF EVALUATION

1. New genetic parameters and correlations between traits.

2. New traits have been included in the beef evaluation:
- a. Birth weight and early life weights.
- b. Dairy herd calf price and post-weanling mart price.
- c. Four new carcase cut traits.
- d. Cow liveweight and cull cow carcase conformation and fat.

3. Animals in groups of less than five are being included in the evaluation for every trait.

4. Redefinition of contemporary groups:
- a. Slaughtered animals:
  - i. Bullocks are not now compared in the same groups as bulls and cows. There is also an additional correction for previous herds, for animals that have moved from herd of birth.
- b. Linear scored animals:
  - i. Heifers are not now compared in the same groups as bulls over 250 days of age.
  - ii. Show animals and ET animals are also grouped into separate contemporary groups from normal animals.
  - iii. Crossbred animals will no longer be compared in the same contemporary groups as pedigree animals.

BULL SEARCH

In order to access more information about any AI, Stockbull or Young Beef Bull go to www.icbf.com and enter his AI code or tag number into the bull search facility.

The indexes

1. Maternal Index
This is an indication of a bull's genetic merit to produce profitable daughters. E.g. A bull with a Maternal Index of €264 is expected to sire daughters that are €264 more profitable than the average Irish suckler cow.

Table 1: Weightings of the various traits that make up the Maternal Index

INDEX	% EMPHAISIS
Calving	24%
Beef	43%
Fertility	19%
Milk	11%
Docility	3%

2. Terminal Index
This is an indication of a Bull's genetic merit to produce cattle for the factory or mart. e.g. A Bull with a Terminal Index of €148 is expected to sire cattle for the meat industry that are €148 more profitable than the average animal.

Table 2: Weightings of the various traits that make up the Terminal Index

INDEX	% EMPHAISIS
Calving	29%
Beef	68%
Docility	3%

MODIFICATIONS

Further Modifications
It must be stressed that this current bull search output is 90% finalised. Some slight modifications are still expected to be made to the final version.

These slight changes will be designed to more clearly explain how a bull's maternal index is derived. The maternal graphics illustrate that a Bull's maternal performance is based on two factors:

1. **Cow contribution:** The performance of his direct daughters for milk ability, calving interval, feed intake and other such important traits.
2. **Calf contribution:** The performance of the progeny of his direct daughters for traits such as liveweight, carcase weight and conformation etc. The modifications made to the first page of the bull search will explain the maternal index in more detail so as to show a purchaser what is affecting a bull's maternal index the most.

The Limousin AI Sire 'On-Dit' is an example of a Bull that is well balanced for both the Maternal and Terminal Indices.

As his ICBF figures become more reliable, as more of his progeny are born and recorded here in Ireland, his evaluation figures are coming more in line with both is evaluation figures in France and the impression Irish Breeders have of his progeny here in Ireland.

French Figures:

Calving Ease	97
Weaning Proof	110
Beef Abilities	106
Maternal Qualities	104
Maternal Value at Weaning	121

Well-balanced proof in France which is in line with how he is emerging in Ireland. The Irish Limousin Society consider him to be: 'a balanced bull with heavy beefy males. The females have volume and good maternal qualities'.