

Genomic Euro-Star indexes launched

On Friday last, 16 September, Minister for Agriculture Food and the Marine Michael Creed launched genomic Euro-Star Indexes. This is a significant milestone for beef breeding in Ireland as it sees the incorporation of genomic data into Irish beef indexes for the first time. The publication of genomic beef indexes is the end result of many years of data collection and research by ICBF, Teagasc and the DAFM. This research has been supported by a special advisory committee made up of world-leading experts in the field of genomics.

The Numbers

Over 445,000 beef animals now have a genomic index and over the course of the Beef Data & Genomics Programme (BDGP) this number will rise to over two million, with over 300,000 animals being picked up annually for genotyping as part of the programme requirements. Of the 445,000 animals with a genomic index, 382,000 are females and 63,000 are males (primarily AI and stock bulls). Approximately 63% of the 382,000 genotyped females are four- or five-star on the Replacement Index, with the remainder being one-, two- or three-star animals. Something which farmers have been paying a lot of attention to is the Euro value cut-off figures for the various star ratings in the Replacement Index. The four-star cut-off figure has dropped from €74 to €73, while the five-star cut-off has dropped from €98 to €91.

Genomic and non-genomic indexes

Updates have been made to online facilities and reports to highlight animals that have a genomic index. The ICBF Animal Search now displays a green bar above the animal's Euro-Star Index which confirms that the animal has genomics included in its evaluation. Animals that don't have a green bar do not have a genomic index. Online herd profiles (www.icbf.com) have a column heading "Genomic Eval" with a "Yes" or "No" denoting whether the animal has a genomic index. Some animals may have been sampled on farm

but their genotype may not yet have been processed. Provided there are no issues with the genotype, these animals will have genomics included in the next evaluation run.

The report

What will be of most interest to farmers will be the impact which genomics has had on the Euro-Star Indexes of their own animals. All online facilities such as the ICBF Animal Search and Euro-Star profiles have been updated with the August 2016 indexes. The latest BDGP report will be posted to all BDGP applicants from the week beginning 3 October. This report will have the latest Euro-Star Indexes. The report will also include the genomic status of each animal in the herd. There are three different statuses:

DNA Requested – DNA sample requested but not yet returned from farm.

DNA Returned – DNA sample returned from farm and is currently being processed.

Genomic Evaluation – Animal has genomics included in its Euro-Star Index.

Benefit to farmers and the industry

There will be undoubted benefits to the introduction of genomics to beef Euro-Star Indexes. For farmers, the most notable ones are:

- ➔ The increase in reliability figures for young animals which will allow farmers to select future breeding stock with more confidence.
- ➔ Confirmed parentage eliminating future potential inbreeding issues.
- ➔ Identification of animals carrying undesirable genetic defects. Farmers can then avoid mating animals carrying the same defects.

The benefits for the wider industry will also be significant, most notably the increased levels of traceability that genomics will bring about. Ireland is the first country in the world to introduce genomics on such a scale for beef animals. This will be a significant factor in the future marketing of Irish beef.

If you have any queries on the latest genomic indexes please contact ICBF on 023-882 0452 or email query@icbf.com.



Minister for Agriculture Food and the Marine, Michael Creed (right) launching genomic beef Euro-Star Indexes on the farm of Sean McSweeney, Macroom, Co Cork (left), with Michael Doran, Chairman of the ICBF board (centre). This is the first time that genomics has been included in Irish beef indexes.

Q&A

Q. When will I receive my updated BDGP Euro-Star report?

A. Reports will be generated in the coming week and will be posted to participating herds from the week beginning 3 October. Reports will be arriving on farms over the following two to three weeks. The ICBF online animal search and all online profiles have been updated and are now displaying the latest Euro-Star indexes. Farmers can generate a new BDGP Euro-Star report through their HerdPlus login.

Q. Why do none of the animals which I tagged in 2016 have genomic indexes?

A. When tissue/hair samples are returned, the DNA must be extracted and the resultant DNA information must be collected and sent to ICBF. This data must then be added to the Euro-Star Index of the animal. This is done through a process called a genetic evaluation. ICBF carries out genetic evaluations three times per year (April, Aug & Dec). Unfortunately, most of the 2016 samples were not returned in time for the August evaluation. These animals will, however, receive a genomic proof in the December genetic evaluation run. The new BDGP Euro-Star report will tell you the exact status of an animal's DNA sample.

FARMER FOCUS: SEAN MCSWEENEY

BDGP will bring benefits

Name: Sean McSweeney, Macroom, Co Cork
Farming system: Suckler to weanling/beef
Four- and five-star females: Cows: 68; Heifers: 32.
Stock bull or AI? Stock bull.

Replacement Strategy: Breed all of my own.

Sean McSweeney runs a 100-cow suckler herd outside of Macroom, Co Cork. Minister for Agriculture, Food and the Marine Michael Creed last week launched genomic Euro-Star indexes on Sean's farm. We catch up with Sean for an insight into his farming system.

What is your farming system?

The calving pattern is mixed between spring and autumn. Under my current system, I am selling bulls as weanlings and I am taking the heifers to slaughter at about 20 months. I have two Limousin stock bulls. The older bull is sired by Bavardage (AGB) with a Replacement Index of €111. The younger bull is sired by Neuf (NUF) with a Replacement Index of €97. My father and brother run a dairy herd on the home farm and I generally source my replacements from here. I may start to retain some of my own heifers as replacements in future. I have introduced Speckled Park replacements into the herd over the last year and I am very pleased with them.

What is your routine around data recording?

I record all of my data through the survey forms. I wouldn't be the best on a computer and I just find the forms convenient for me. The forms allow me walk through the animals outside while I complete the docility and quality scores. The freepost envelopes are included with the forms which makes it quick and easy to return them when completed.



Sean McSweeney

Launch of genomics

When I got the phone call a number of weeks ago I was only too happy to oblige. I was delighted to have the Minister for Agriculture on my farm. I think the BDGP will bring huge benefits for suckler farming and I was delighted to be able to play a part in promoting it.

DATES FOR THE DIARY

➔ Tuesday 4 October @ 3pm - Teagasc National Beef Conference, Hodson Bay Hotel, Athlone. For more info go to <https://www.teagasc.ie/media/website/events/Teagasc-Beef-Conference-Leaflet.pdf>