



What is Gene Ireland Beef?

Gene Ireland Beef is a programme designed to deliver consistent genetic gain to the national suckler herd by testing high index young beef bulls on an ongoing basis. The programme is primarily concerned with improving maternal traits; namely milk, fertility and calving ability. It is a joint initiative between ICBF, the AI companies (Dovea Genetics & NCBC) and the Irish beef breed societies (Aberdeen Angus, Irish Angus, Aubrac, Belgian Blue, Blonde D'Aquitaine, Charolais, Hereford, Limousin, Parthenaise, Piedmontese, Saler, Beef Shorthorn & Simmental).

Background 2007-2013

Gene Ireland Beef, in its original guise, began in 2007. The programme sought to test young maternal beef bulls which had been purchased by AI companies. This was done by signing up commercial suckler herds to use semen from these bulls. 500 straws were disseminated from each bull and the performance of the resulting progeny was monitored. This resulted in bulls achieving high levels of reliability within a short period of time. This original model remained until 2013. Approximately 100 bulls across 10 beef breeds were tested during this period.

2014-

In 2014, Gene Ireland Beef took a new direction. The focus of the programme had always been on trying to test maternally strong bulls and to performance record daughters of these bulls as suckler cows. The primary demand experienced by AI companies and pedigree breeders in the past, however, has been for terminal type bulls. These bulls bred excellent quality stock for sale as weanlings, store cattle and for slaughter. However, daughters of these bulls that were retained as suckler replacements were, in many cases, totally unsuitable for this purpose. The number of maternal bulls in use in Ireland, either AI or stock bulls, was very small and because of this, commercial suckler farmers found it very difficult to source suitable replacement heifers. As maternal traits in the national suckler herd were showing no signs of improvement (see Figure 1) ICBF and the wider industry realised that a renewed, more structured emphasis on maternal breeding was required. Bulls now being tested are high Replacement Index bulls which are purchased directly by the Gene Ireland Beef Programme. AI company owned bulls will still be tested alongside the bulls purchased by Gene Ireland, provided they meet certain criteria.



The goal of Gene Ireland Beef is to help deliver more profitable suckler cows to the national herd.



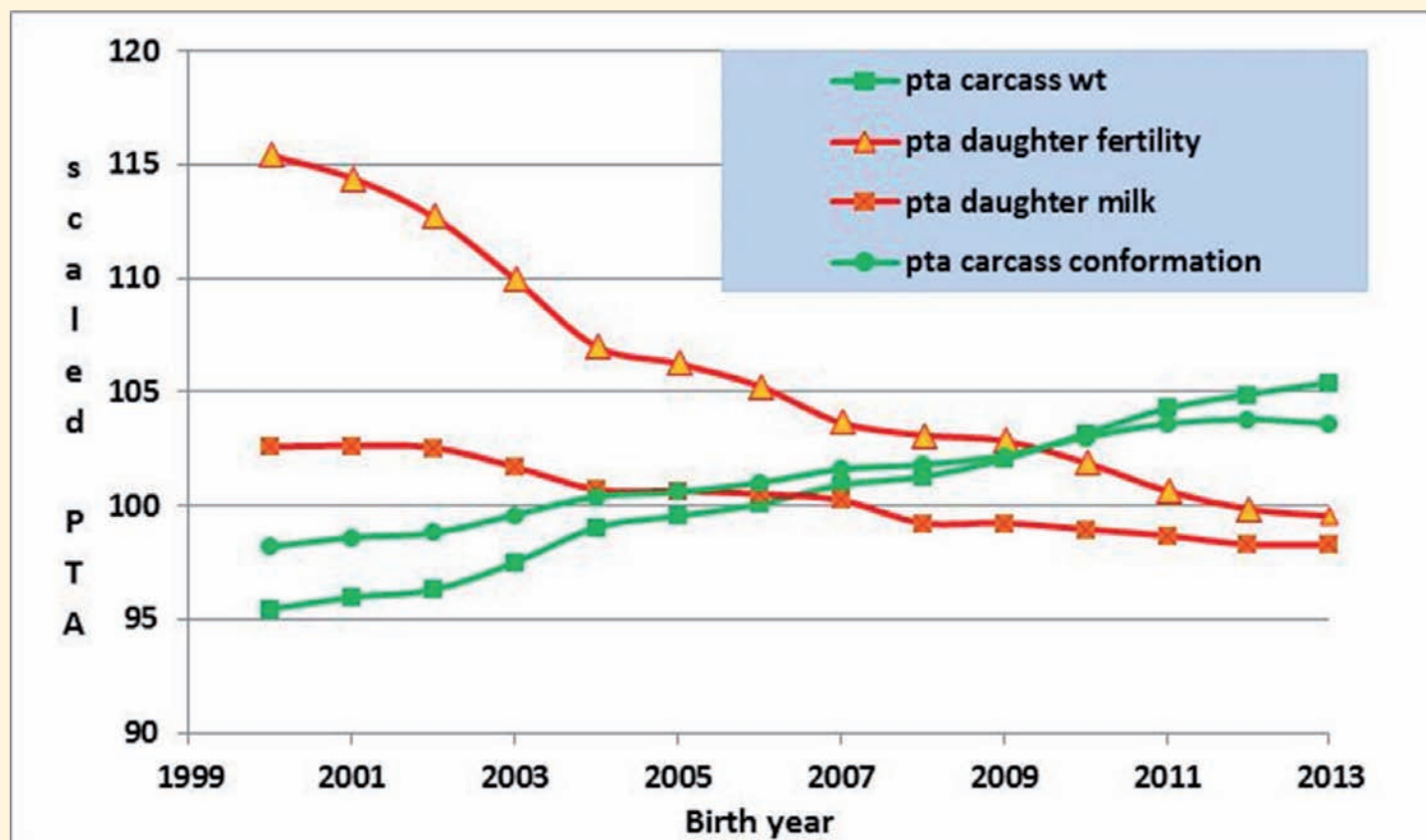


Figure 1. Graph showing decline in maternal traits and increase in terminal traits in the national suckler herd since 2000. It clearly outlines the "seesaw" relationship that exists between maternal and terminal traits.

New Gene Ireland Beef Programme

There are two distinct programmes which come under Gene Ireland Beef. These are:

1. *The Maternal Bull Breeder Programme (Pedigree Herds)*
2. *The Maternal Progeny Test Programme (Commercial Herds)*

1. Maternal Bull Breeder Programme (Pedigree Herds)

The Maternal Bull Breeder Programme was launched in the Autumn of 2012 and specifically deals with pedigree beef herds. There is an annual fee of €250 for herds that sign up. The herds that sign up undertake to do two main things:

- Record high levels of accurate data on their animals e.g. birth weights, weaning weights, etc.
- Place more emphasis on maternal traits when selecting bulls to mate with their cows.

HDQI

The quality of data coming from these herds is assessed under the Herd Data Quality Index or HDQI. The HDQI is an overall % score assigned to a herd and takes into account the completeness of data, as well as the timeliness of it being recorded (all data must be recorded within 21 days of the event). ICBF will continuously monitor the HDQI's of these Bull Breeder herds. Participating herds will receive an initial data collection visit from a linear scorer where all animals in the herd are weighed and scored. Gene Ireland Beef Herd Liaison Officers (HLO's) will also visit these herds on an annual basis. They will work with these herds and advise them in areas such as:

- Data recording (ensuring all data is recorded in a comprehensive and timely manner)
- Breeding (working with a list of recommended AI sires of interest to the programme)
- Bull management (proper feeding, handling, etc. of young bulls)

For herds that are signed up to the programme and whose HDQI is at a satisfactory level, a stamp will be assigned to identify animals from these herds. The stamp will highlight that the animal was bred in a participating herd, but also that the data being recorded in this herd is comprehensive



Sales Catalogues

One of the main functions of the Gene Ireland Beef Programme is to identify elite young bulls for progeny testing. ICBF will monitor participating pedigree herds on an ongoing basis for the presence of high Replacement Index young bulls. A shortlist of bulls, ranked on Replacement Index, will be drawn up for inspection 2-3 times per year. ICBF linear scorers will carry out the inspections. Bulls that pass a visual inspection are then eligible for consideration by their respective breed committees. Each participating breed has its own committee which is made up of representatives from ICBF, AI companies, the breed society and commercial farmers. Bulls that are selected by each breed committee are purchased by Gene Ireland and entered to a bull stud for semen collection. 1,000 doses of semen will be taken from each bull. Bulls that are purchased by Gene Ireland will only be sourced from pedigree herds participating in the Maternal Bull Breeder Programme. AI companies may also put forward young bulls for testing, provided they are from maternally strong breeding. It will take 5-6 years for a bull to become fully proven.

Bulls that return as elite maternal bulls after the progeny test will be used to breed the next generation of elite young bulls. Of the 1,000 doses of semen collected from each bull, 500 doses will have been used for progeny testing. Pedigree herds participating in the programme will have exclusive access to the remaining 500 doses to use on a selection of their cows. Gene Ireland will look to purchase sons of these bulls in the future for progeny testing. By continuously repeating the process over and over again and selecting the highest Replacement Index bulls for progeny testing each year, Gene Ireland Beef will deliver consistent genetic gain to the national suckler herd by breeding more profitable suckler cows and breeding bulls.



2. Maternal Progeny Test Programme (Commercial Herds)

The Maternal Progeny Test Programme is the second part to Gene Ireland Beef. Commercial herds can sign up to take semen from young test bulls. The main benefits for commercial herds that sign up to the programme are:

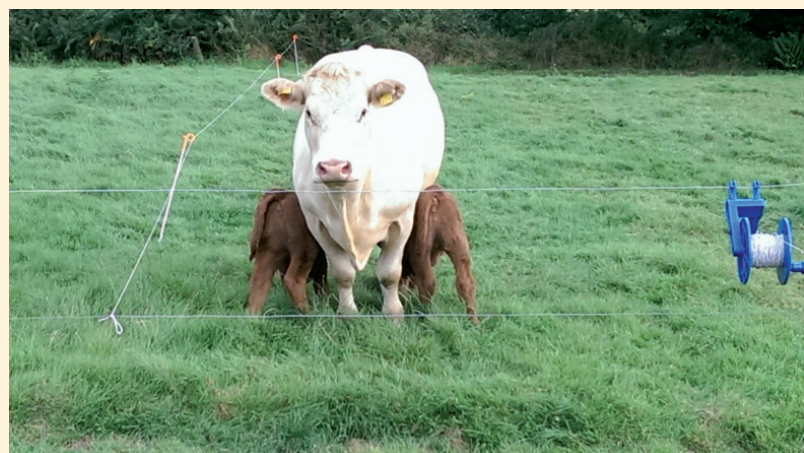
- Access to elite maternal genetics to breed top quality replacements.
- Semen available at a reduced price of €5 per straw (not including AI company callout charges).
- Free weighing of progeny by an ICBF weighing technician.
- Potential to sell weanlings back to Gene Ireland for progeny testing in the Tully Test Centre, Co. Kildare.
- Choice of whichever bulls and breeds the farmer wants.



GENE IRELAND progeny on performance test in the Tully Test Centre, Co. Kildare.

Progeny Testing

500 doses of semen from each bull will be disseminated to commercial suckler herds for progeny testing. ICBF will monitor the performance of these animals on farm. Traits such as calving difficulty, birth weights, docility and weaning weights will be recorded on these progeny on farm. Some progeny will be purchased by Gene Ireland for performance testing at the Tully Test Centre, Co. Kildare. These animals will be tested on traits such as feed efficiency, growth rate, meat yield and meat eating quality. Much of this is high level data that can only be collected in a controlled environment like Tully. Carcass data from any slaughtered progeny will feed into the database automatically from meat factories. It is the performance of daughters of these bulls, that are retained for breeding, that will be of most interest to the Gene Ireland Programme. On these females, traits such as age of first calving, weaning weights (milking ability) and calving interval (fertility) will be monitored. Bulls whose daughters perform well in commercial herds will then be used in pedigree herds to breed the next generation of elite bulls.



A cow and her twin heifer calves; all sired by Gene Ireland bulls. It is the performance of daughters of the young test bulls which will be of most interest to the programme.

Sign-up and Semen Distribution

Commercial farmers that are interested in taking semen can sign up by phone. Catalogues of current bulls will be available in the Spring and Autumn and will be posted to farmers that are already using AI in their herds. Once a farmer has picked which bulls they want semen from they can place an order with ICBF. Farmers that carry out DIY

AI will have straws delivered directly to their tanks by the AI rep which they nominate when ordering straws. For those that use a technician service, straws will be delivered to the AI technician which they nominate. Farmers will be billed for the Gene Ireland straws by their AI company as per normal AI straws.

If you are a pedigree breeder and you are interested in the Maternal Bull Breeder Programme, or if you are a commercial farmer and you are interested in the Maternal Progeny Test Programme, please contact ICBF Gene Ireland on 1850 600 900.