



- There are almost 2M genotypes in the national database and counting. ICBF is the largest beef genomics database in the world.

- Ireland is home to 1.35 million dairy cows

- With a temperate climate, farmers can grow large quantities of grass over a long season. This advantage makes dairying highly profitable (Teagasc)



KEY CASE STUDY

ICBF SELECTION INDEX

GENETICS

The Irish Cattle Breeding Federation (ICBF), exists to benefit farmers in the Irish dairy and beef industry. A nonprofit organisation, it provides breeding information services and supports the application of science and technology to increase livestock value and profit. AbacusBio consultants Peter Amer and Fiona Hely worked with the ICBF to develop an index for dairy farmers to rank beef bulls most likely to convert to dairy and impact the beef sire industry.

With the dairy herd in Ireland reaching new heights in 2018, more and more dairy-influenced stock was available for beef production. However, the quality of Irish beef production was at risk of deteriorating. AbacusBio created a new index based on the estimated genetic potential of beef bulls to produce profitable, high-quality cattle (when mated to dairy cows) which have a minimal impact on dairy cow performance through ease of calving and short gestation lengths.

The index was presented at the 2018 Teagasc National Beef Conference "it is a compromise of what the dairy farmer wants and what the beef farmer wants.

It's not exactly perfect for everybody, but it is definitely a compromise," said Andrew Cromie from ICBF. The index included traits related to calving performance, efficiencies of production, carcass merit (yield and quality), and also addressed societal demands.

"The dairy cow is going to have plenty of milk and she is going to go back in calf as quickly as possible, but it will also give a decent calf that can be sold on," stated Donagh Berry from Teagasc. The index was approved by the ICBF, released in the Irish spring of 2019.

AbacusBio has completed a realm for work for ICBF including assessing the role of maternal genetics and genomics for beef breeding in Ireland. Alongside providing strategic guidance in an industry-wide beef genomics program in response to the abolition of EU Milk quotas which threatened the conversion of suckler beef herds to dairy.