Sustainable Beef Policy Document
**Abbreviations:**

EU - European Union

AI - Artificial Insemination

% - percent

ICBF - Irish Cattle Breeding Federation

BDGP - Beef Data Genomic Programme

PO - Producers Organisation

DM - Dry Matter

DM/Ha - Dry Matter per hectare

KgDM - Kilogram of Dry Matter

c/Kg - Cent per kilogram

t - tonne

EPA - Environmental Protection Agency

AD - Anaerobic Digester

CHP - Combined Heat Plant

DEXA - Dual-Energy X-ray Absorptiometry

KPI - Key Performance Indexes

QA - Quality Assurance
Introduction

If we look back to the years when Macra na Feirme was in its infancy, small scale mixed farming was the bedrock that rural Ireland was built on with hundreds of thousands of families surviving on the fruits of that labour. As time has moved on, the structure of farming in Ireland has changed but the importance of farming, and in particular beef farming, on the shape of rural Ireland has grown as urbanisation becomes an increasing part of society.

However, as time has moved on, these structures have changed, and we find ourselves with a beef sector that while still a huge part of our agriculture sector in both numbers and value is not coming anywhere close to sustaining families in a way it did even twenty years ago. This is further demonstrated when we look at the age demographic of beef farmers. As a sector, it is dominated by farmers in their sixties, seventies, eighties and even nineties. For everyone involved in agriculture, this should scare them to the core as it threatens the future of this sector and the thousands of jobs that depend on it.

In young farmers though, we have hope for the future, because despite all of the negativity surrounding the sector there are still young people who want nothing more but to be a beef farmer, to bring the technical advances, outside the box thinking and enthusiasm for change that is required for the fortunes of the beef sector to change.

In this document, we have put together the findings of an extensive consultation with our members, exploring the strengths and weaknesses that currently exist and the opportunities for improvement that could change the future of this sector. I want to thank all those who contributed to these consultations for showing us the real needs of young beef farmers going forward. I want to thank our Agricultural Affairs committee for their hard work in developing this policy and their commitment to advancing the future of the sector. I also want to thank the staff of Macra na Feirme, in particular Jennifer Keegan and Derrie Dillon for bringing the best out of our committee and for their dedication to young farmers.

Changing the beef sector will not be a quick or easy task, but we believe that in this policy we have put together a realistic and achievable roadmap to a more vibrant and profitable beef sector. For this to come about it will take a unity of purpose and a commitment from all to making these changes and I call on everyone involved in all parts of the sector and the Government to make this commitment.

This document is only the latest step in Macra na Feirme’s work to improve the future of young farmers in Ireland and I call on all those not currently helping to shape our policy to come in to the tent and have their voices heard.

James Healy

Macra na Feirme National President

2017-2019
Context

The beef sector is one of Ireland’s most important indigenous industries. In Ireland meat production accounts for over 40% of Ireland’s gross agricultural output (Enterprise Ireland, 2019). This production is dominated by beef and the sector itself can be subdivided into suckler producers, fatteners and cattle finishers. In the European Union, Ireland is currently the largest net exporter of beef and is ranked the 5th largest exporter in the world. Over 90% of the beef produced in Ireland is exported (Bord Bia, 2019).

Since the removal of milk quotas in 2015, the suckler herd population has experienced a 4% decline. At the end of 2010, the total number of suckler cows in Ireland was 911,104 however, by the end of 2017 there had been a drop of 40,537 cows to a figure of 870,567. The total Irish bovine slaughtering accounted for 7% of the total of EU slaughtering in 2017. Ireland exported a total of 190,000 head of live cattle during 2017 which was a 30% increase from the previous year. The total export has also increased in 2017 by 42,844 compared to 2016. There was an increase of 2,809 in the export of live weanlings, with exports of stores and finished cattle also increasing by 10,003. The output value of the cattle sector was €2,282.7 million in 2016, which shows an increase of 6.8% since 2012 (agriculture.gov.ie, 2018). Continued rapid transformation is vital for the beef sector as it continues to respond to the evolving market demands. These demands affect processors and farmers both from a profitability and sustainability point of view. In this regard maintaining the premium status of our Irish beef remains a significant challenge.

Over the years there have been considerable fluctuations in commodity prices particularly in beef prices. Improved standards of living, changes in dietary patterns and a rise in population levels are all contributing to an increase in global food demand. Countries with a lower cost of production remain the main threat to Irish producers. Macra na Feirme believes more work at EU level is required to prevent further access to the EU markets from these third countries. The profitability of the primary producer needs considerable attention in order to get more from the market. The Irish beef industry needs to future proof the sector by creating an action plan. Macra na Feirme acknowledges these challenges and with the input of our Young Farmer Discussion Groups around the country we have developed a beef policy to address the challenges.

These include:

- Collaboration /Co-operations through the developing of producer organisations.
- Beef breeding programme aimed at increasing the genetic merit of the national beef herd.
- Identifying key production targets for beef farmers to achieve.
- Nutrient management requirements.
- Climate change
- Beef grading system.
- Quality Assurance bonus
- Schemes
Macra na Feirme engaged and consulted with young beef farmers across six meetings to gather their views to aid the development of the Macra na Feirme Sustainable Beef Policy document. Below is an outline of young beef farmer’s views on the current and future state of the beef sector in Ireland. We asked our young beef farmers to identify the current strengths, challenges and opportunities which are facing the beef sector.

### Strengths:
- Origin Green
- Assurance and traceability
- Level of exports
- Grass-based systems
- Genetics

### Challenges:
- Age profile of beef farmers
- Access to finance
- Public education
- Grading system
- Brexit

### Opportunities:
- Efficiency
  - Education and training
  - Lean management
- Collaboration
  - Buyer groups
- Sexed semen
- Grass utilisation and infrastructure
- Genomics
- Technology advancements
- International markets

Figure 1 Macra na Feirme Young Beef farmers sector analysis

This is just a short summary of the wide-ranging discussions that took place, however it highlights that young farmers see a future for the beef sector, but this involves tackling the challenges that the sector faces while making the most of the opportunities that our members identified.
Collaborative/ Co-operation:
Producer organisations can provide stability, security, reduce the workload and increase efficiency for beef farmers. Recent data research conducted by John Joyce, Nuffield Scholar 2015, identified savings that can be achieved from producer organisations which concluded that participants could save 5-10%. An example of this saving is on insurance in which one purchasing group saved 17% on their producer organisation’s insurance policy (Joyce, 2015).

Macra na Feirme strongly supports the use of producer organisations, both in buying inputs and selling outputs produced. The most efficient way to ensure this is through the formation of EU recognised producer organisations which can be used to negotiate with factories or exporters. In the EU, producer organisations receive the following opportunities;

- Food Chain Recognition
- CAP: Co-operation Art 36, CMO, Greening
- LEADER Funding
- Labelling- Organic, PGI/PDOs
- Promotion
- Research and Development
- Co-op Statute

Producer organisations give beef farmers who have not the size or scale, the bargaining power of large-scale beef producers when dealing with the industry and encourages more efficiency in the processing end of the sector. A good working ethos and understanding of the needs of the group is essential to ensure unity of its members. Farmers can be held responsible for the stock produced, which will lead to better quality stock being produced in the group. In order for the group to be successful, there needs to be trust and loyalty. Production contracts should be drawn up between group members which outlines the production targets including weekly kills, target animal specs etc. These production contracts should be used for forward selling of the animals produced to give the primary producer more certainty in determining their annual income.

Machinery sharing could also be incorporated once the necessary biosecurity measures were adhered to within this group, to increase efficiency, reduce costs, workload, and encourage leaner work practices; encouraging beef farmers to work together as a support network to transfer knowledge and to create social outlets for beef farmers. This sharing concept is widely incorporated into the French farming community for well over 50 years. The success of any purchasing group is the understanding and purpose of the group by its members and commitment to achieve the long-term goals and ambitions of the group.

Former Macra na Feirme Agricultural Affairs chairperson John Joyce proposed a document ‘A blueprint for starting a successful producer group’ as part of his Nuffield Scholarship in 2015. This document explores the possibilities of a successful producer group in relation to the beef sector in Ireland.
For reasons outlined previously, Macra na Feirme strongly supports the move to recognise and fund facilitators for the producer organisations and will be encouraging beef farmers amongst our membership to form and join a registered producer organisation. In addition, we will be offering our own education service for members joining a producer group in the running and organisation of such bodies through our Skillnet programme. Essential skills required to partake in a producer group are covered in the Macra Agricultural Skillnet training course, Management Seminar.

Development of producer organisations involving farmers can significantly reduce their overall inputs costs by buying products in bulk. Macra na Feirme believe this will bring more cohesion among local farmers while also reducing costs. Producer organisations could benefit farmers from various beef enterprises when buying products such as fertiliser, seed, animal feed, vaccines, doses, AI straws, general maintenance products and most importantly low interest credit. Access to finance, especially low interest credit is very difficult for any farmer today, regardless of enterprise. The establishment of producer organisation can combat many problems which face beef farmers daily. Ideally the group would source an independent facilitator to set up and run the group to encourage proper governance to the aims and objectives of said group.
**Beef Breeding Programmes**

It is important that the best available breeding technologies are used to ensure that the value of this output is maximised for the beef sector and for the economy. One of the first goals for a beef farm is aiming to have clear fertility targets for the herd. The output on a suckler farm is directly related to the amount of live calves that are weaned from the cows each year. Breeding technologies will help the farmer to achieve key performance targets set for the farm such as calving heifers at 24 months of age. The improvement of the overall genetics of the herd can be achieved by breeding high index replacement heifers, purchasing 5-star bulls and the use of AI. Recent and relevant scientific research should be considered when devising on farm breeding programmes. The use of breeding indexes will predict the impact which a sire or dam may have on the profitability of the next generation of animals. Beef breeding indexes, which are published by the Irish Cattle Breeding Federation (ICBF), are comprised of €uro-star indexes and these indexes are used as a measure of the effect a sire or dam will have on the profitability of their calf. ICBF must improve communication with beef farmers, on matters such as star rating and on how they are derived. ICBF is a valuable resource and asset to any beef farmers business, increased efforts must be made to demonstrate the benefits to farmers by the beef industry.

Macra na Feirme calls on all marts to display index figures on the display boards for animals being sold in the ring as part of a voluntary code. This additional information will aid beef farmers when buying animals by providing real-time information on animals for sale which will allow them to make more informed decisions on animals in accordance to their farm breeding programme.

- **Increased genetic merit of the beef herd**

For beef farmers to increase the genetic merit of their herd the selection of suitable sires is a critical component. The use of terminal sires for production will result in beef farmers producing animals with higher feed conversion rates and higher daily live weight gain. For example, an animal with a terminal index €150 (5 stars) is expected to leave an additional €100 more profit in comparison to an animal with a terminal index of €50 (Watson). For a finishing animal a four- or five-star animal has the potential to be slaughtered 22 days before an animal of a one- or two-star rating (Watson). The use of high-quality terminal sires with low percentage calving difficulty will increase the on-farm profitability by reducing the feed cost, reduced animal health issues and reduced labour time spent on farm.

The Department of Agriculture launched the Beef Data and Genomics Programme (BDGP) in May 2015. This scheme will run until 2020 with the aim of improving the genetic merit of the Irish suckler herd while also reducing greenhouse gas emissions being emitted from Irish beef herds. This scheme is a good example of how beef farmers can improve their genetic merit. By improving the national beef herd genetics, it will enhance carbon efficiency while delivering a positive economic benefit for the beef farmer. Many members of the BDGP expressed strong support for the scheme and many young, progressive farmers believe additional requirements could have been added if the opportunities for increased payments were offered. Access to schemes such as the BDGP is essential for young farmers. Macra na
Feirme calls on the Department of Agriculture to give serious consideration to either reopening the BDGP or alternatively establish a new scheme which integrates the successful principles of the BDGP with further and more ambitious goals.

- **Genomic Testing:**

Macra na Feirme calls for whole farm recording rather than current selection. Beef farmers could significantly benefit from using genomics. Genotyping increases the reliability percentage of the animal before it has produced any offspring. It also ensures both sire and dam are required to ensure parentage verification. Animals can be identified as carrier of several diseases and certain genes. This will also reduce the use of the antibiotics and cost in beef herds while also reducing the cases of antibiotic resistance in the food chain. When beef farmers are tagging new born calves, it will be easier from a practical point of view to keep a record of both sire and dam. The reliability of the calf being tagged increases by 20% due to genotyping. Currently over 400,000 calves born into Irish herds have no sire recorded, which results in 40% of the genetic data being absent. Genotyping also ensures the animal can be fully traced from farm to fork. Beef finishers need to know the following when selecting animals from farms or marts regarding to their feed intake efficiency, disease and their lameness resistance. Genotyping will allow farmers to make calculated decisions when buying stock (www.ICBF.com, 2018). Macra na Feirme calls on beef processors to pay a premium on cattle finished which have been genotyped for the benefit for the overall beef industry.

![Traditional Breeding vs Genomics](www.ICBF.com, 2018)
Artificial Insemination (AI)

The use of AI on a beef farm can have significant benefits once handling facilities are suitable. In 2017, according to ICBF figures, only 25 percent of calves bred on Irish beef farms were through AI. Beef farmers should use AI to select animals based on reliability and select bulls which are best suited to the dam. Irish beef farmers over the years have traditionally used stock bulls which they would buy in and keep for an average of three years. A move away from using a stock bull would give the beef farmer a greater choice when selecting the ideal sire to suit their production needs. For example, a farmer could choose an AI bull which has a higher maternal index to be used on maternal cow to produce superior replacement stock for the farm. This breeding system is not suited to all beef farmers especially part-time farmers as there are high levels of management associated with using AI. In cases of failure to detect heat, only 10% is attributable to cow problems with the remaining 90% due to management problems (Diskin, 2018). However there have been significant recent advancements in heat detection aids which are available to beef farmers. Technology such as Moocall HEAT, which eliminates the need for a cow to observed while presenting signs of heat. This technology, that is worn by the vasectomised bull provides the beef farmer with the following data:

- The exact time cows or heifers are in heat.
- Whether a cow or a heifer repeats.
- Due dates, and when you can assume a cow or heifer is pregnant.
- Cow fertility over time.

Sexed Semen:

Macra na Feirme calls for further development on the potential use of sexed semen for breeding selection and improving genetic profile and profitability of the national beef herd. The use of sexed semen may reduce the occurrences of difficult calving as heifer calves tend to be lighter. Sexed semen allows the farmer to expand their herd while maintaining a closed herd which improves the biosecurity on the farm.

Further research should also be conducted in knowledge transfer tools to better utilise the beef output in a systemised manner. This allows the suckler beef farmer to select and ensure the correct amount of replacements are bred from the superior cows each year in accordance to their breeding plan. Other benefits to beef farmers could include improved bio-security, rapid increase in herd size and quality of beef cattle being produced in Ireland. A recent study conducted in New Zealand reported fresh sexed semen conception rates were approximately 94% (Murphy, 2018). More research is required in Ireland to ensure optimal conception rates and increase number of bull’s semen being sexed.
In relation to sexed semen use in Ireland there needs to be significant buy in from all AI companies and beef farmers. A farmer who wants to produce a heifer as a replacement could take up to four AI straws to produce that heifer calf in comparison to potentially two sexed semen AI straws.

In line with Macra na Feirme’s Pre-Budget Submission 2019, we repeat the call for the removal of VAT on all sexed semen AI straws which are available on a VAT reclaiming basis for all farmers, including those not registered for VAT. Macra na Feirme also calls for a centre for production of fresh sexed semen in Ireland.
Farm profitability:
There are many key targets that beef farmers must aim to achieve, these include; calving heifers at 24 months of age, having tight calving patterns, aiming for a short calving interval and keeping mortality rate to a minimum.

➢ Farm productivity

There are three main drivers of profits on a beef farm, these include; stocking rate, beef price and performance per livestock unit. Stocking rate and performance per livestock unit are drivers which the farmer has control over. A beef farmer must have a clear and concise plan when it comes to buying in stock, inputs etc. A key component for any beef farmer is a strong knowledge of the market specification, in order to meet bonuses and targets set by their processor.

➢ Reduce calving interval

According to the ICBF database the average calving interval was 400 days in 2017 for the national beef herd, the target is 365 days. Calving interval describes the number of days between each calf being produced on farm. A simple action plan defining calving interval, mortality rate currently in the herd and targets should be aimed to be met over a three-year period. This is a critical component for seasonal calving systems in order to reduce overall winter feed costs (Woods, 2018). Reducing the calving interval will also have a positive impact on the weaning weight of calves. Higher fertility is experienced by cows which calve early in the calving season as they undergo a longer period of recovery before the next service. Studies have linked profitability of a suckler herd directly with the number of calves reared per cow/heifer that was served on farm. According to ICBF, the figure for calf per cow per year for 2017 was 0.85. The target is 95 live calves per 100 cows (0.95/calves/cow/year). If this farmer was producing weanlings and could raise this figure by 0.1, it would mean an extra 10 calves to sell or approximately €6000 - €7000 extra in sales for the year (Woods, 2018).
Figure 4 Effect of calving beef cows early in the calving season on the resumption of cycling (Woods, 2018).

- **Age at first calving**

Reducing age at first calving can have a significant effect on a cow’s lifetime performance. It is recommended that heifers should be targeted to calve down at 24 months of age. At 15 months of age an animal should be at 60% of its mature body weight which is an ideal time for breeding. This will ensure the animal will give birth at 24 months at 80% of mature body weight. Figures from ICBF identifies only 24 percent of heifers calved at 22-26 months of age in 2017.

- **Technology/Knowledge transfer-refocus**

As per the National Farm Survey findings, there are significant differences in beef enterprise gross margins between the upper and lower quartiles. This highlights the issues surrounding productivity in the sector. Significant differences are also observed between what is achieved on most farms and the optimum beef farm blueprints achieved in the Teagasc research farm in Grange. Areas of such technological advancements include grassland and breeding management and utilisation, animal health and feeding.

Macra na Feirme Young Farmer Skillnet has collaborated with Dawn Meats on providing the Young Beef Farmer Sustainability Programme (YBFSP). This programme is an ideal starting point for young beef farmers. This programme comprises of 16 modules undertaken at regular intervals.
Macra na Feirme also calls for more young beef specific advisors to be made available for beef farmers. It’s important that the farmer has access to face-to-face meetings with their advisor and the advisor has sufficient time to give their client.

➢ **Incentivise new entrants**

The age profile of the average beef farmer is a growing concern within the industry and we in Macra na Feirme believe more supports must be made available for young beef farmers. The Minster for Agriculture, Food and the Marine, Michael Creed, regularly highlights his concern about the age profile. If beef processors are serious about generational renewal within the beef sector, processors must incorporate a bonus for young farmers to ensure the long-term sustainability of the beef sector. Macra na Feirme believes there will be no change in beef farm development unless the age profile of the beef farmer is lowered.

![Farmers by age group (EU-27) (European commission).](image)

Statistics released by the Health and Safety Authority (HSA) state that 34% of total fatalities on farms between 2007-2016 have involved a person aged 65 or older. Macra na Feirme Young Farmer Skillnet in association with industry currently provide young farmers the opportunity to complete farm safety courses.
Deaths to Older Farmers 2007 - 2016
(34% of Total Fatalities)

- Tractors, Farm Vehicles, 15, 23%
- Livestock, 15, 23%
- Falls from height, 8, 12%
- Falling objects, Bales, 7, 11%
- Machinery, 7, 11%
- Quads, 6, 9%
- Drowning, Slurry, 3, 4%
- Timber related, 3, 4%
- Other, 2, 3%

Total 66

Source: www.hsa.ie
Nutrient Management:
There is significant capacity to improve the overall soil fertility level in Ireland. The health of our soil is a key component in the efficient utilisation of soil nutrients. It's important for us to understand the chemical, physical and biological properties of soil. Macra na Feirme calls for greater knowledge transfer programmes and farmer education to ensure improve grassland management on beef farms. This will include increasing the number of beef farmers participating in the weekly routine of measuring and monitoring grass growth.

➢ Grass management and utilisation

Growth and utilisation of grass underpins the competitiveness, profitability and sustainability of Ireland's low-cost beef production system. Grass growth that can be achieved in Ireland is our key competitive advantage over most other EU beef producers. Grass is a very nutritious feed and is comparatively cheap when managed correctly.

Measuring grass and budgeting is essential to increase grass utilisation from its current level. Grass at a reasonable level of utilisation (75%) costs approximately 7.5c/kg utilisable dry matter compared with first and second cut grass silage at 18.5c/kg and 18.2c/kg utilisable DM compared to concentrates at 30 cent per KgDM. Where soil fertility is corrected, beef farms can grow up to 15 t DM/ha of grass on light- medium soils and 10 t DM/ha of grass on heavier soil (Egan, 2018).

Utilisation of grass can be increased on beef farms by improving the current utilisation rate or increasing the amount of grass grown. The Teagasc Grass10 campaign which was launched at the end of January 2017, is a campaign aimed to promote sustainable grassland and increase utilisation over a four-year period. A campaign like this amplifies the importance of good grassland management practices in place on farms. If a beef farmer increases grass being utilised on the farm by 1 t DM/ha/year it would be worth in return to that farmer € 105/ha (Egan, 2018).
Macra na Feirme believes that more specific grassland advisors are required for beef farmers on the ground to ensure optimal utilisation of grass is achieved. There also needs to be more financial supports for farmers to set up better grazing infrastructure. Supports such as roadways, fencing, paddock planning, water trough installation etc. are required for farmers to improve the overall grass management and utilisation. This is in line with the Macra na Feirme Pre-Budget Submission 2017 which proposed an amendment to the Rural Development Programme regarding grazing infrastructure.

### Soil fertility

Currently only 11 percent of soils tested were of an optimal status for lime potassium and phosphor. For beef farmers to grow the maximum DM/Ha possible from their farm, soil fertility must be correct (Egan, 2018). Soil testing is the starting point, and the foundation to delivering the correct balance of both for major and minor nutrients. Incentivising farmers to conduct soil sample testing and implement results of soil tests on farm is essential to achieve potential grassland production. To achieve soil fertility targets, there needs to be a renewed focus by advisory and extension services to ensure soil test results are explained and understood by the farmer.

Macra na Feirme calls for a link to be established between the Nutrient Management Plans (NMP) and soil testing as a result-based incentive. This link will ensure that the results from the soil testing will be implemented in accordance to the farms NMP.
Climate change:
Ireland is one of three countries in Europe which has a high reduction target in relation to emissions. Irish agriculture is somewhat unique in comparison to other member states as emissions from agriculture represents 33% of the country’s overall emissions. The large number of dairy cows and the increase in milk production are identified as the main contributors in growth according to EPA. However, the Irish agriculture sector has one of the lowest carbon footprints when compared with other developed countries’ (agriculture sectors?). Macra na Feirme is appealing for international recognition of this fact.

There have been a lot of negative views expressed in relation to climate change and farming practices. The need to reverse the negative views into a positive in relation to climate change is clear. An aspiration for future beef farmers should be to capture the methane gases produced from beef production in an anaerobic digester (AD) and produce electricity from this gas in a combined heat and power (CHP) plant. The digestion process converts biomass and waste products of a high carbon footprint such as cattle slurry, into usable gas. The remaining ‘digestate’ product is high in nutrients and can be used to reduce fertiliser costs on the farms. Raw material which can be used in an AD include; Food waste, slurry, silage, grass, root and cereal crops.

However, this situation is not viable for current Irish beef farmers as the biogas potential per tonne is low for cattle slurry (19.6 m³/tonne). If an AD system was incorporated with a variety of feedstock such as barley straw, which has a biogas potential per tonne of 383 m³/t (Caslin, 2018), then community ownership in a co-operative structure could make AD a viable option with varying farming enterprises in which electricity can be produced to benefit the entire rural community. The ability of AD to take slurry from farms in unsettled weather instead of spreading in unfavourable conditions, will reduce the environmental impact of spreading such slurry.
The environmental impact of meat production varies significantly due to the wide variety of agricultural practices employed around the world. Most common environmental effects associated with meat production are animal methane, effluent waste, water and land consumption etc. Over 30% of national GHG emissions are emitted from an agricultural source. The carbon footprint of suckler beef is influenced by the reproductive efficiency of the suckler cow herd (e.g. age at first calving and calving rate) and the daily live weight gain of progeny to weaning or slaughter.

As many of our above proposals have addressed, key measures for increasing profitability of the beef sector has the added benefit of reducing GHG intensity per kg. Great recognition of the efforts farmers have made to reduce emissions is needed. For example, Irish beef’s low carbon footprint could be advertised more prominently considering constant improvements are being made by farmers to improve their carbon footprint.

Beef systems:

According to research conducted in the Teagasc Derrypatrick herd, the most carbon efficient beef system is under 16 months bull beef production. Regardless of the breed the younger the bull the better the feed conversion efficiency (FCE). For this reason, the FCE has been the driver for the profitability and efficiency of this beef system. The choice of feed will have an effect on feed efficiency, with this system the main aim is to use feed that will efficiently use energy to produce lean meat/muscle. Farmers must have good handling facilities especially
with young bulls, as like other animals they can be dangerous and unpredictable (Teagasc.ie, 2018).
**Beef grading system**

In 1979 a national beef carcase classification scheme was introduced which facilitated improvement in the quality of beef being produced. In 1982 a mandatory EU-wide scheme was introduced. Data recorded for each beef carcass in factories include: carcass weight, gender (steer, heifer, young bull, bull and cow), carcass conformation score (E, U, R, O, P) and carcass fat score (1 to 5 fattest). Mechanical carcass grading video imaging analysis (VIA) has replaced the traditional and subjective visual grading. Macra na Feirme proposes more research be conducted in the possible use of x-ray technology which is being currently used in Australia.

The trials using this x-ray technology should be used alongside the current beef grading system for direct comparison. The use of Dual-Energy X-ray Absorptiometry (DEXA) technology will pay the producer on meat yield rather than carcass weight.

Macra na Feirme calls for an extensive review of the current grading system which has been in place in Ireland since 1979.

➤ **Consumer eating experience:**

The eating quality of any meat is heavily dependent on management decisions made by the farmer. Management decisions such as genetics and feeding practices can directly influence age, marbling, fat depth and colour of the meat produced. According to Teagasc research in Ireland, 9 to 16% of variation in tenderness, flavour and juiciness of beef meat is related to the genetic makeup of the animal. Research has also shown how consumers choose and select beef over other types is associated to the sensory properties of the beef’s flavour and tenderness (Judge, et al.).

In New Zealand farmers are paid on the consumer eating experience when it comes to the meat they produce. This system could also be adopted to Irish beef producers as we are heavily dependent on our export markets, we need to make sure that we meet the expectations of consumers eating our products.
Quality Assurance:

- **Quality assurance bonus:**

Macra na Feirme calls for all farmers who are currently in the Quality Assurance scheme to receive the quality assurance bonus for beef they produce as they are providing consumers with a quality assured product.

Currently, animals of a certain grade slaughtered in abattoirs receive the quality assurance bonus, while the farmer who does not meet the grade required is being penalised by reducing the quality assurance bonus from the base price. However, in this country all meat produced on quality assurance certified farms are being sold as quality assurance beef, regardless of the grade. Macra na Feirme believe this should not occur, if the farm is quality assured then the farmer should receive the relevant bonus for the product produced.

- **EU guaranteed quality - geographical indication marks**

The qualities associated with the origin of Irish beef are well established and recognised. From its grass-fed nature to its distinctive colour and eating experience, it is ideally placed to be recognised and protected at European level under the European Quality Schemes Geographical Indications. Applying for this process through the Department of Agriculture, Food and Marine to the European Commission should be a priority. A geographical indication mark for Irish beef has the potential to add significant value to our quality beef product. This added value needs to be returned to the primary producers for their work and production techniques in producing this distinctive product that consumers clearly identify and associate with.
**Schemes:**

The Irish suckler herd has been the backbone of our success on the international retail markets. The value of a suckler cow as per research conducted by Teagasc compares beef and dairy cows. From this research it concluded that beef cows have greater live weight gain (+12%), carcass weight gain (+24%) and meat produced (+33%). It is important to maintain and make more profit from our current level of suckler beef production. This sub-sector remains under significant economic pressure and realistically needs to be subsidised in order to maintain its economic viability, especially in marginal land. In relation to this scheme, the increase in support for Irish Suckler cow production should be conditional on quantity and technical efficiency improvement e.g. use of genotyping, weight recording, vaccination programme, minimum 80% of 4/5-star suckler cow and reduction of carry over cows KPI. Macra na Feirme calls for schemes to be evaluated in terms of efficiency targets set out in agri-food strategies such as Food Wise 2025.
Business development plan:
As per ‘The viability of the Irish farming sector in 2015’ report conducted by Teagasc which compares viability of Irish farming across all sectors. The viability of each farming systems is displayed below. It’s important for a farmer to take into consideration when developing the farm business plan.

Macra na Feirme would encourage all young farmers to draw up a realistic five year business plan with the help of a qualified farm advisor before entering the beef sector. As per the findings of the Teagasc ‘The viability of the Irish farming sector in 2015’ report only 20% of cattle rearing farms are viable, 45% are sustainable with the help of an off-farm employment and 35% of cattle rearing farmers are vulnerable (Hennessy & Moran, 2015). Any young farmer thinking of entering this sector must aim to place themselves in the viable category of this spectrum and challenge themselves to be in the top 25% of profitable beef farmer within the beef sector. Any young farmer that finds themselves outside the sustainable or viable category should weigh up their options with an alternative enterprise.
Key Performance Indicator (KPI)
There are several key performance indicators in which beef farmers can measure activities based on management practices implemented on the farm. Examples of such KPI include the following:

- Age of Heifer at calving - 24 months
- Calves weaned per cow per year - >0.95
- Calving interval - 365 days
- Percent of calves born with greater than 4 stars - > 80%
- Tonnes of grazed utilised per ha - > 10 t utilised/Ha
- Live weight gain per day - >0.8 kg
- Higher percentage of AI bred calves
- Implementation of a profit monitor
- Cost per cent to produce 1 kg of meat
- A return for time invested on the farm
References


Bord Bia. (2019, 01 08). Retrieved from
https://www.bordbia.ie/industry/buyers/industryinfo/meat/pages/default.aspx

https://www.bordbia.ie/consumer/qualityassurance/pages/default.aspx

Caslin, B. (2018, 03 22). Retrieved from Teagasc.ie:
https://www.teagasc.ie/media/website/publications/2016/02.-Anaerobic-Digestion.pdf


Diskin, M. G. (2018, 03 22). Retrieved from Teagasc.ie:


Murphy, C. (2018). Retrieved 03 21, 2018, from Teagasc.ie:


