Department of Agriculture, Food and the Marine
An Roinn Talmhaíochta, Bia agus Mara

Value for Money Review

Animal Welfare, Recording and Breeding Scheme for Suckler Herds

Department of Agriculture, Food and the Marine

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Table of Contents

		Page
List of Appendices		III
Tables		IV
Charts		IV
Executive Summary		VI
Chapter 1: Review Introduction		
1.1	Introduction	1
1.2	Background to the Review	1
1.4	Steering Committee	1
1.5	Terms of Reference	2
1.6	Format of the Review	2
Chapter 2: Beef sector in Context		
2.1	Introduction	5
2.2	Irish Beef Sector	5
2.3	History of Suckler Herd in Ireland	7
2.4	Suckler Cow Breed Types	11
2.5.	Land Use Activity	13
2.6	Coordination with overall DAFM Strategy	14
Chapter 3: Suckler Cow Scheme		
3.1	Introduction	18
3.2	Background to Scheme	18

3.3 Rationale for Suckler Cow Scheme 21

3.6 Animal welfare schemes in other EU MS 24

Chapter 4: Methodology and Programme Logic Model

4.1 Introduction 27

4.2 Programme Logic Model 28

4.3 Methodology Table 29

4.4 Data 30

Chapter 5: Stakeholder consultation

5.1 Introduction 31

5.2 Stakeholder Consultation 31

5.3 Meeting with Farm Organisations 33

5.4 Questionnaire 34

Chapter 6: Scheme Efficiency

6.1 Introduction 36

6.2 Scheme Inputs & Outputs (participants and costs) 36

6.3 Breeding Data 40

6.4 Scheme Efficiency I: Premium Rate 43

6.5 Scheme Efficiency II: Deadweight 48

6.6 Scheme Efficiency III: Scheme Administration 50

Chapter 7: Scheme Effectiveness

7.1 Introduction 57

7.2 Welfare 57

7.3 Breeding 66

7.4 Competitiveness of beef sector 71

Chapter 8: Policy Options

8.1 Introduction 77

8.2 Option 1: Business as usual 77

8.3 Option 2: Cessation of the Scheme 78

8.4 Option 3: New Range of Measures 79

Chapter 9: Performance Indicators

9.1 What are Performance indicators? 80

9.2 Current performance indicators 81

9.3 Proposed additional Indicators 82

Chapter 10: Summary of Conclusions and Recommendations

10.1 Summary of Conclusions 83

10.2 Recommendations 84

List of Appendices

Appendix	Contents	Page
A	Survey of Veterinarians	87
B	Survey of Scheme Participants	88
C	Meeting with Farm Organisations	95
D	Survey of Buyers and Exporters	96
E	Additional Breeding Data	99
F	DAFM Allocation to ICBF	100

G	Calf Registration Form in Denmark	102
H	Bibliography	104

Tables **Page**

2.1	Average value of a 330kg bull weanling from 2008-2011	7
2.2	Cow Numbers in Ireland	8
2.3	Herd Size of Suckler Scheme Participants 2010	9
3.1	Summary of Suckler Scheme Terms and conditions	21
4.1	Generic Programme Logic Model	27
4.2	Programme Logic Model-Suckler Scheme	28
4.3	Components of the Methodology Table	29
5.1	Issues discussed with Farm Organisations	32
5.2	Summary of views of Farm Organisations	33
6.1	Scheme payments	37
6.2	Total Inputs	37
6.3	Number of Animals and Herds paid	39
6.4	Cows paid under Scheme as a % of national Herd	39
6.5	Calculation of 2008 Premium Rate	44
6.6	Staff Costs	51
6.7	Applicant Error Rates	52
6.8	DAFM Allocation to ICBF	54
6.9	Total Scheme Admin Costs in 2010	55
7.1	Measure of effectiveness of welfare obligations	58
7.2	Rates of Beef Weanling deaths in 2010	59
7.3	Age of suckler dam at time of calving	60

Charts

2.1	Suckler and Dairy Cow Numbers in Ireland	8
6.1	Herds engaged with ICBF	41
6.2	Calves registered on ICBF database	41
6.3	First calver beef cows with sires	41
6.4	Sire recording on beef calves	42
6.5	Weanling Quality recording	43
6.6	Docility records	44
7.1	Rates of Beef Weanling deaths 2006-2010	58
7.2	Age of Dams at Calving Age	61
7.3	Average Genetic Evaluation Reliability of Sires of Beef Calves	68
7.4	Beef Sire Selection 2007-2011	69
7.5	Use of AI for beef sire selection 2007-2011	70
7.6	Use of *Herd Plus*	71

Executive Summary

Context of this Review:

This Value for Money review is undertaken in accordance with the Department of Finance Value for Money and Policy Review Initiative which was introduced to secure improved value for money from public expenditure. VFM reviews aim to analyse Government spending in a systematic manner and provide a basis on which more informed decisions can be made on priorities within and between programmes. This review examines the efficiency and effectiveness of the Animal Welfare, Recording and Breeding Scheme for Suckler Herds (hereafter called the Suckler scheme) and was overseen by a Steering Group comprised of representatives of Department of Agriculture, Food and the Marine (DAFM), Department of Public Expenditure and Reform, Teagasc, and Bord Bia.

Terms of Reference:

The agreed terms of reference were that the Review would examine the Suckler scheme to:

1. Identify the Scheme's objectives.
2. Examine the current validity of those objectives and their compatibility with the overall strategy of the DAFM.
3. Define the outputs associated with the scheme's activity and identify the level and trend of those outputs.
4. Examine the extent that the Scheme's objectives have been achieved, and comment on the *effectiveness* with which they have been achieved.
5. Identify the level and trend of costs and staffing resources associated with the Scheme and thus comment on the *efficiency* with which it has achieved its objectives.
6. Evaluate the degree to which the objectives warrant the allocation of public funding on a current and ongoing basis.
7. Examine the scope for alternative policy or organisational approaches to achieving these objectives on a more efficient and/or effective basis (e.g. through international comparison.)
8. Specify potential future performance indicators that might be used to better monitor the performance of a Scheme.
9. Provide recommendations where appropriate on the effectiveness and efficiency of the scheme.

Methodology

This Review employed the following methodology:

- Use of a Programme Logic Model
- Survey of grant recipients
- Survey of scheme withdrawals
- Survey of exporters, buyers, marts, veterinarians
- Analysis of Scheme Data
- Discussion with Farm representative organisations
- Discussion with relevant State Agencies

Background:

The Suckler scheme was introduced in January 2008 to run for a maximum five years until end-2012. It is 100% funded by the National Exchequer. The Scheme was open to all active Suckler farmers; however where a farmer was an active Suckler farmer and did not apply to join the Scheme in 2008 he/she is not allowed to join at a later date. New entrants to Suckler farming are eligible to apply when they commence farming.

The objectives of the Scheme[1] are:

- Enhance welfare standards for animals produced from the suckler cow herd
- Improve husbandry standards at weaning time leading to reduced illness and mortality and enhanced health of the National herd.
- Provide education and knowledge building among farmers on best practice in suckler herd health and welfare.
- Improve the genetic quality of the National suckler herd.
- Improve the competitiveness of the Irish beef industry and the quality of the beef produced.

Scheme Inputs and Outputs:

The Inputs to the Scheme fall into four categories:

- Grants Paid[2]

[1] DAFM Suckler Scheme Terms and Conditions 2010

- Administration Costs
- Training Costs
- DAFM allocation to ICBF

A summary table of the Inputs is below.

Total Inputs 2007- date[3]:

Issue	Cost
Grants Paid	€122,820,564[4]
Administration Costs	€7,896,940[5]
Training	€3,230,000
DAFM Allocation to ICBF	€4,022,122[6]
Total	€137,969,627

The Scheme Outputs come under two main categories:

i. The number of herds participating

ii. The number of animals paid under the scheme

No. of Herds and animals paid for under Scheme 2008-date[7]

	2008		2009		2010		2011[8]	
	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals
Total no. paid	43,654	798,022	35,525	617,633	30,830	510,869	20,783	307,000

[2] The premium rate was €80 per suckler cow in 2008. This rate was reduced to €40 per cow for 2009 and subsequent years due to the significant uptake of the scheme and increased pressure on the national finances.
[3] As at 10 December 2011
[4] Includes animals born to end -2011 on which payments have been made. There are still some outstanding payments from 2009-2011 born animals due to errors in the applications.
[5] Based on 2010 staff costs as a representative year
[6] As at end-September 2011
[7] As at 10 December 2011
[8] Includes animals born to end -2011 on which payments have been made. There are still some outstanding payments from 2009-2011 born animals due to errors in the applications.

Efficiency:

The Efficiency of the scheme was analysed based on the following criteria:

Criteria	Conclusion
Premium Rate	The initial premium rate was attractive enough to encourage a very high level of participation in the scheme, such that the premium rate had to be halved after the first year due to over-subscription and budget restrictions. The halving of the rate contributed to a reduction in the number of herds participating but the reduction in numbers was not as substantial as might have been expected. The initial oversubscription at €80 and the continued strong participation at €40 suggests that a similar level of output might have been achieved with a lower input. However it is thought that this pattern of participation would have been influenced by a herd owner's decision to commit to the five year scheme initially and having completed year one, having invested in creep feeders etc. continued participation was not the same decision as the initial decision to take part. The model eventually employed of a higher premium in Year 1 followed by a reduced premium thereafter would have been an appropriate approach from the start as it reflects the set-up costs and initial changes to practices and record-keeping, which should then become established.
Deadweight	As with any large scheme that provides grants to bring about behavioural change, a certain level of deadweight was unavoidable as it would have been difficult to exclude farmers that were following good practices before the scheme was introduced as they were still entitled to participate. The Scheme has a number of different elements and for individual farmers some management practices did not have to change at all whereas other practices did (e.g. recording breeding data). This complicates the estimation of deadweight and therefore a single percentage figure estimating deadweight would not truly reflect the complexity involved. Based on the evidence available it is estimated that for the various different elements of the scheme deadweight varies from a low of 5% for sales procedures to a high of greater than 30% for meal feeding or disbudding.
Scheme Administration/ Staff Costs	The stakeholder feedback for this VFM indicated that the administration of the scheme by DAFM has been positive for a majority of the scheme recipients. However the administration costs of the scheme are estimated at €18 million over the lifetime of the scheme and are considered disproportionate to the level of the grants paid when compared to other schemes of a similar nature in DAFM. The main reason for the high costs can be attributed to the complexity of scheme design whereby farmers

	are eligible to apply on a per animal basis and must supply animal data in three different forms at different stages of the year. The lead Division in DAFM implementing the Scheme has identified that there can be up to 25 separate transactions per tag resulting in 60 potential errors on each individual animal application. Therefore significantly higher staff resources are required than would be if the scheme premia were paid on an annual per herd basis. On average there are at least three payments issuing to each Scheme applicant in one year. Added to this is the time spent sorting out errors in applications which further increases the resources required to process an individual application. Another reason for the higher than expected administrative costs is the relatively low level of uptake of online applications.

Effectiveness:

The Effectiveness of the scheme was analysed based on the following criteria:

Criteria	Conclusion
Breeding	Use by Suckler farmers of information derived from data collected under the Scheme, in their breeding and replacement decisions, is a long term goal which was not possible to fully measure within the remit of this VFM. Notwithstanding the early nature of the analysis, some positive trends are emerging which indicate beef farmers utilising higher rated bulls based on the Eurostar classification. This is particularly true for AI breeding where farmers have more choice from year to year. Based the dairy EBI experience, a full analysis of the benefit of the breeding measures will only be possible a number of years after the end of the Scheme.
Welfare	A number of indicators demonstrate that the Suckler Scheme has had a positive effect in bringing about a lasting change to welfare practices. It is not possible to be definitive while the scheme is still in operation as participating farmers are being paid to follow good practices but there are strong signs that at least some of the welfare practices would continue on the majority of farms in the absence of a Scheme.
Competitiveness of Irish Beef Sector	The competitiveness of the beef sector has improved considerably over the course of the Suckler scheme although this is heavily influenced by international market prices. There were significant concerns relating to live export markets prior to the introduction of the Scheme and the Scheme has resulted in reputational enhancement particularly with regard to the quality of suckler weanlings as a result of the improved welfare measures. This has contributed to the record levels of live exports in 2009 and 2010 and led to increased market competition for beef animals.

Conclusion:

In summary, the Steering Group concluded that:

- The Scheme has largely met its original objectives in terms of bringing about improvements in animal welfare, collection of breeding data and ultimately achieving improved competitiveness within the Irish beef sector. The challenge now is to consolidate the gains achieved over the last four years while ensuring that public funding is used most efficiently and levels of expenditure reflect the pressure on the public finances in the coming years.

- The initial premium rate was attractive enough to encourage a very high level of participation in the scheme, such that it was over-subscribed. The model eventually employed involving a higher premium in Year 1 followed by a reduced premium thereafter would have been an appropriate approach from the start as it reflects the set-up costs and initial changes to practices and record-keeping, which should subsequently then become established practice.

- The animal welfare measures have directly contributed to improved prices for weanlings and improved reputation for Irish beef and live exports in key markets. There has also been significant attitudinal and behavioural change by suckler farmers with regard to animal welfare and there are strong indications that they would continue with most of the measures even in the absence of a scheme;

- Significant improvements have been achieved in the collection and processing of the breeding data submitted under the Scheme. This data is of particular value to ICBF in improving genetic evaluations and in facilitating the use of genomic selection in beef evaluations. The use of this data by farmers in terms of influencing their selection of sires etc. is a more long-term issue whose effectiveness can only be fully measured over a longer time period. However the early trends are positive in terms of a move towards selection of higher rated bulls;

- Largely as a result of the complexity of the scheme design, the costs of its administration are disproportionate when compared to the scheme outputs as well as when compared to similar DAFM schemes. The administration of the scheme is unnecessarily complex and needs to be re-examined if the scheme is to deliver better value for money;

- The Steering Group believes that the Suckler Scheme has succeeded in advancing and improving management and animal husbandary practices on suckler farms but it is appropriate to assess whether continued public funding is justified. The position at the end of 2012 will be very different to that which prevailed in 2007 prior to the introduction of the Scheme and for that reason a different policy response is now indicated. Suggested Policy Options are outlined in Chapter 8 and the Steering Group believes that neither continuation of the Scheme in its current format nor its complete cessation is desirable;

- Policy Option 3 recommends a new range of measures to ensure that the gains made under the Scheme can be consolidated and also to ensure that measures now well established under the current Scheme no longer receive public funding. There may also be scope for placing some of these measures on a statutory footing. The Steering Group does not prescribe the exact design of any future measures believing that that these may best be determined in consultation with other bodies such as Animal Health Ireland and the ICBF. Consequently the decision to continue the current Scheme for 2012 provides a timeframe that can be utilised for consideration of possible new measures.

CHAPTER 1 - INTRODUCTION

1.1 Introduction

This Chapter sets out the background to both the Expenditure Review Process, the Terms of Reference for this Review and a description of each of the Chapters.

1.2 Background to Value for Money Review Process

This Review forms part of a public service initiative aimed at promoting active monitoring of the effectiveness and efficiency of public expenditures. The Government's Value for Money and Policy Review Initiative replaced the former Expenditure Review[9] Initiative and is part of a framework introduced to secure improved value for money from public spending. The objectives of the Initiative are to analyse Exchequer spending in a systematic manner and to provide a basis on which more informed decisions on the deployment of resources can be made. All formal reviews of this nature are published and submitted to the Select Committees of the Oireachtas.

1.3 Steering Committee

A Steering Committee to oversee the preparation of this Expenditure Review was established and had its first meeting in February 2011. In all, nine meetings of the Steering Committee were held. The members of the Steering Committee were:

1. Chairman: Dave Ring
2. Colm Hayes, Economics and Planning Division, DAFM
3. James Conway, Economics and Planning Division, DAFM
4. Carmel Delahunt, Suckler Welfare Section, DAFM
5. Pat Preston, Suckler Welfare Section, DAFM
6. Peter Maher, ERAD, DAFM
7. John Carty, Livestock Breeding, Production and Trade Division, DAFM
8. Dr. Mark McGee, Teagasc

[9] The Expenditure Review Initiative was introduced by the Government in 1997. Following certain improvements to the original initiative, the Value for Money and Policy Review was introduced in 2006.

9. Gerard Brickley, Bord Bia

10. Terry Jennings, Dept of Public Expenditure & Reform

11. Nelius Lynch, Dept of Public Expenditure & Reform

1.4 Terms of Reference

These terms of reference were approved by the Secretary-General of the Department of Agriculture, Fisheries and Food on 11 January 2011 and received the required approval of the Department of Finance.

The agreed terms of reference were that the Review would:

1 Identify the Scheme's objectives.

2 Examine the current validity of those objectives and their compatibility with the overall strategy of the DAFF.

3 Define the outputs associated with the scheme's activity and identify the level and trend of those outputs.

4 Examine the extent that the Scheme's objectives have been achieved, and comment on the *effectiveness* with which they have been achieved.

5 Identify the level and trend of costs and staffing resources associated with the Scheme and thus comment on the *efficiency* with which it has achieved its objectives.

6 Evaluate the degree to which the objectives warrant the allocation of public funding on a current and ongoing basis.

7 Examine the scope for alternative policy or organisational approaches to achieving these objectives on a more efficient and/or effective basis (e.g. through international comparison.)

8 Specify potential future performance indicators that might be used to better monitor the performance of a Scheme.

9 Provide recommendations where appropriate on the effectiveness and efficiency of the scheme.

1.5 Format of Review

In view of the complexity of the Review and the need to separate clearly the descriptive and historical content of the Review (i.e. Chapters 1-4) from the principal evaluative chapters

(Chapters 5-6), it was found necessary to deal with the subject-matter set out in the terms of reference in a different format than that which might be suggested by a straight chronological analysis of the topics concerned. In the adoption of the format of this Review the Steering Committee agreed to follow as closely as possible the Terms of Reference:

Chapter 2: Beef Sector in Context

This Chapter provides some overview on the Suckler cow herd and beef sector in Ireland as well as the policy objectives of DAFM and its Agencies as they relate to the Suckler herd.

Chapter 3: Suckler Scheme

This Chapter sets out the background to the Scheme as well as its objectives and the rationale behind these objectives.

Chapter 4: Programme Logic Model and Methodology

This Chapter sets outs i) objectives of the schemes ii) the Programme Logic Model and iii) the methodology used in the completion of this Review.

Chapter 5: Consultation with stakeholders

The stakeholder consultation undertaken as part of the VFM is presented here including the Steering Committee meeting with the Farm Organisations. There is also discussion of the VFM surveys which were undertaken of the scheme beneficiaries, those how have withdrawn from the scheme as well as exporters, buyers marts and veterinarians as well as the presentations to the Steering Group by Teagasc and Bord Bia.

Chapter 6: Scheme Output and Efficiency

This chapter looks at the inputs to the Schemes in terms of costs as well as outputs of the schemes with particular emphasis on the physical and financial outcomes. It also examines the level of premium paid for the scheme as well as the collection of breeding data by the ICBF. The administrative operation of the Scheme and the issue of deadweight associated with the scheme are also examined.

Chapter 7: Scheme Effectiveness

This chapter looks at the outputs of the schemes with particular emphasis on welfare, breeding data on competitiveness of the Irish beef sector.

Chapter 8: Policy Options

This Chapter contains three Policy Options for future consideration.

Chapter 9: Performance Indicators

This Chapter outlines performance indicators which should be borne in mind for the full assessment necessary to analyse the success of the Suckler scheme.

Chapter 10: Conclusions and Recommendations

This Chapter contains a summary of the main findings of the Steering Group. In addition, a detailed list is included of the key recommendations in this review which could inform future schemes.

Chapter 2: Beef Sector in Context

2.1 Introduction

This Chapter provides some overview of the Suckler cow herd and beef sector in Ireland as well as the policy objectives of DAFM and its Agencies as they relate to the Suckler herd.

2.2. Irish Beef Sector

The beef industry is one of Ireland's most important indigenous industries and comprises a vital part of the agri-food sector. In Irish agriculture[10], 93,000 farms have a cattle enterprise on their farm, making cattle production by far the most prevalent agricultural enterprise on Irish farms. Ireland currently exports 90% of its beef production and is the largest net exporter of beef in the northern hemisphere, and the fourth largest beef exporter in the world. Suckler beef production is the most widespread farm activity in Ireland with suckler farms having a wide geographic distribution in contrast to many other farming enterprises, which are concentrated in specific locations. Thus, suckler farming makes an important contribution to economic activity in diverse regions throughout the country.[11] The value of beef and cattle output in 2010 for the Republic of Ireland was €1.7 billion, representing 38% of total agricultural output, and was the largest single agricultural sector.

Ireland sells over half of its beef exports to the UK which together with Continental EU markets comprised 98% of exports in 2010. The value of beef exports is estimated to have risen 8% in 2010 to nearly €1.51 billion with the volume of beef available for export increasing by 8% to almost 0.5 million tonnes. Overall, exports to the UK in 2010 rose by 4% to an estimated 254,000 tonnes and were worth €685 million, helped largely by higher availability of finished cattle, a recovery in retail sales and the appreciation of sterling against the euro. Shipments of beef to Continental EU markets increased by 11% to 237,000 tonnes in 2010 and were valued at €817 million. Improved demand in key markets along with greater supply availability and increased export flows from competitors to countries outside the EU all contributed to a strong performance in Ireland's major markets (France, Italy and

[10] The two main sources for this Chapter are:

- Teagasc : *Economic Prospects for Agriculture 2011*
- DAFM*: Agricultural Review and Outlook 2011*

[11] Teagasc National Beef Conference 2011, Suckler Beef Production in Ireland, P. Crossan & M McGee

the Netherlands). In the period since 2000, the share of Irish exports to the lower value and more volatile non-EU markets has declined from over 50% to less than 2.5%. Beef exports to non-EU markets are estimated to have reached 6,000 tonnes in 2010, with Russia emerging as the principal destination. Live exports declined in 2008 to 148,000 cattle, but recovered and increased significantly in the last two years to almost reach 340,000 cattle in 2010. This is believed to have decreased in 2011 due higher domestic prices.

The price of Irish cattle and beef improved marginally in 2010 from 2009. The significant growth in the live export trade in 2010, the consequential tightening of Irish finished cattle availability, along with a still declining EU cattle herd, greatly reduced imports from South America to the EU and increasing world prices for beef, is having a positive impact on Irish cattle and beef prices in 2011. Average R3 steer prices to date are running around 14% higher and currently prices are almost 16% ahead of the comparable time last year.[12] Prices in 2011 for weanlings have increased by over €170 per animal since 2010, due to improved market conditions and has improved confidence in the future of Suckler beef production. This is based on the weekly reported prices on Bord Bia's website[13], the average value of a 330kg bull weanling from 2008-2011 has been as follows (average price during the months of Sept, Oct, Nov in each year):

Table 2.1 Average value of a 330kg bull weanling from 2008-2011

Year	2008	2009	2010	2011
Average Price/kg LW	€1.88	€1.68	€1.89	€2.40
Average Value of 330kg Weanling Bull	€620	€554	€624	€792

Nevertheless, despite an improvement in margins arising from slightly higher output prices and lower input costs, in 2010 over 80% of Irish cattle farmers are estimated to have earned a negative net margin. The National Farm Survey data shows that since 2000 direct payment to cattle rearing and cattle other farmers have made up over 100% of family farm income (FFI)

[12] Teagasc, Suckler Beef Open Day Proceedings, June 2011
[13] As at 16 November 2011

and that the share in 2009 was 204% of average family farm income on cattle rearing farms.[14] Despite the importance of suckler beef farming to the national economy, profitability at farm level is extremely low, with average family farm income (FFI) in 2009 of €221/ha[15]. When direct payments, such as the Single Farm Payments and REPS payments, are excluded, the market-based FFI in 2009 was - €230/ha[16]. As the majority of suckler herds are less than 20 cows, part time farming is a feature of suckler beef production across the country. It is apparent that suckler farming in Ireland is heavily dependent on direct payments to remain viable. Ireland possesses a natural comparative advantage in grass based agricultural production. Ireland's beef sector uses this advantage to base its production on environmentally sustainable grass systems. Beef production in Ireland compares favourably internationally with regard to carbon and water usage, a recent EU study showed that using a life cycle approach that Ireland is the 5th lowest in greenhouse gas emissions for beef in the EU[17].

2.3 History of Suckler Herd in Ireland

The Livestock sector is the driver of economic growth in Irish Agriculture. The size of the breeding herd (both Dairy & Beef) is critical to producing milk and beef (live cattle and meat) products for export.

In the 1950's, it was recognised that the beef herd had to be expanded and this was implemented through the once calved heifer subsidy as part of the second National Programme for Economic Expansion which was introduced in 1963. Both a collapse in beef prices and a huge winter feed shortage in 1974 coupled with greater profitability in dairying lead to an increase in dairy cow numbers at the expense of Suckler cow numbers, throughout the 1970's following EEC entry.

Suckler cow numbers stabilised in the first half of the 1980s. In 1984, there were approximately 420,000 suckler cows in Ireland with 70pc of these in the disadvantaged land areas. The introduction of milk quotas in 1984 meant growth in the dairy sector was halted,

[14] Teagasc National Beef Conference 2011, The Reform of the CAP – Issues for Beef Farmers, Dr T. Kelly & Dr F. O'Mara
[15] Teagasc, National Farm Survey 2010
[16] Teagasc, National Farm Survey 2010
[17] European Commission, Joint Research Centre (2011), Evaluation of the livestock sector contribution to the EU Greenhouse Gas (GHG) emissions

which provided a greater opportunity for suckler farming . As dairy farmers were unable to expand in milk production, they turned to keeping their dairy calves for a beef enterprise. This reduced the availability of calves and stores to beef farmers who in turn began to produce their own calves through keeping Suckler cows and growing their suckler cow herd. The Beef Cow Headage of the late 1980s and then the EU Suckler Cow Premium of the early 1990s as part of the MacSharry CAP reform also meant that numbers increased by close to 75,000 per year from 420,000 head in 1987 to well over one million 10 years later (see figure 2.1 below).

Figure 2.1 Suckler & Dairy cow numbers in Ireland (in 000's)

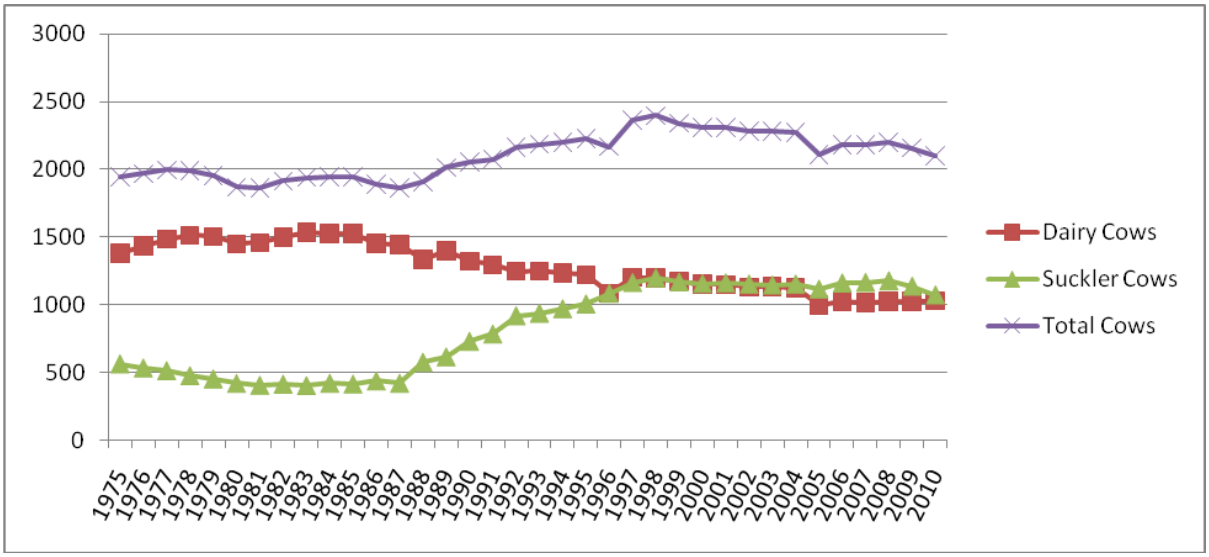


Table 2.2 Cow Numbers in Ireland (in 000's)

Year	2003	2004	2005	2006	2007	2008	2009	2010
Dairy	1136	1122	996	1023	1017	1024	1022	1027
Suckler	1144	1151	1114	1159	1163	1175	1135	1071
Total	2279.9	2273	2110	2182	2180	2199	2157	2098

As happened in dairying, the EU decided to introduce quotas for Suckler cows and Ireland chose 1992 as the reference year for suckler quotas. This was signalled well in advance and so it encouraged farmers to expand numbers further. The annual EU Suckler cow premium introduced in 1993 increased from approximately €140 per cow to €224.15 in the period

2002-2004 on an annual basis plus an extensification premium top up if eligible. Headage payments were also available depending on whether a farmer was situated in a disadvantaged part of the country.

Further change in EU policy happened in 2005 with the introduction of decoupling, whereby all livestock premiums were decoupled from a payment per head basis to the annual single farm payment. The Suckler herd which had been built up over the previous 20 years was believed to be vulnerable because of the new CAP regime, the low market returns for beef and because quality had not kept pace with demands of the market and feedback from weanling purchasers of poor weaning practises which were leading to poor thrive and losses for buyers.

The relatively high prices for beef being experienced throughout 2010 and into 2011 has helped stabilise cow numbers and Industry commentators expect cow numbers to increase slightly in 2011 also due to the increasing profitability of the sector.

Suckler farms in Ireland are largely comprised of small herds with an average size of 17 cows. This is largely reflected in the herd size of Suckler scheme participants as outlined in Table 2.3 below.

Table 2.3 Herd Size of Suckler Scheme Participants

Herd Size	% of herds 2008	% of herds 2009	% of herds 2010
1-20	66.18	70.43	69.76
21-40	23.79	22.38	22.66
41-60	6.59	4.96	5.26
61-80	2.02	1.40	1.45
81-100	0.84	0.49	0.53
101 +	0.58	0.34	0.34

2.4 Suckler cow breed types

Traditionally the heifers selected as replacement breeding stock for the national beef suckler cow herd were the product of crosses of early-maturing British (e.g. Hereford, Shorthorn) beef breed bulls and Friesian dairy cows (McGee and Drennan, 2007). The increased size of the national beef herd relative to the dairy cow herd has meant that proportionately fewer of the replacement breeding heifers have come from the dairy herd. This process has been accelerated by the dominance of Holstein genetics within the national dairy herd since the progeny of these cows produce carcasses of lower beef value, and also for bio security reasons (McGee and Drennan, 2007). Today, about 25% of replacement heifers come from the dairy herd with the remainder coming from the suckler herd, either homebred (60%) or purchased (40%) (Cromie, 2011a). This change in replacement breeding strategy means a significantly greater emphasis on selecting for maternal traits within beef breeds is required.

Progressively, bulls of later-maturing "continental" breeds have predominated the breeding of both cows and bulls in the beef herd. In 1992, approximately 30% of suckler cows were late-maturing breed crosses and by 1998 this had increased to 52% (Drennan, 1994; 1999). Presently, ~75% of cows are late-maturing breed crosses and ~25% are early-maturing breed crosses and, ~85% of cows are bred to late-maturing sire breeds (AIM, 2009).

2.4.1 Beef Cattle Breeding

The Irish Cattle Breeding Federation (ICBF) was established in 2000 as an independent umbrella body to oversee the development of cattle breeding in Ireland. At this time the Irish cattle breeding industry was fragmented, both beef and dairy, and featured multiple databases, breeding companies, identification systems, and genetic evaluation provided by the Department of Agriculture and Food. For beef there were three different genetic evaluation systems each covering different traits and different segments of the breeding population, for a limited range of breeds and these databases were unlinked and incompatible (Evans et al., 2007). The initial focus of the ICBF was to establish, a central database, an on-farm "animal events" recording system, a genetic evaluation system for all traits across breeds and an index to select superior animals (Evans et al., 2007). This development evolved rapidly and beef breeding indexes, sub-indexes and individual trait genetic information became available (e.g. Amer et al., 2001; Hickey et al., 2005; Evans et al., 2007)

and various components of these were tested/validated by Teagasc (e.g. Drennan and McGee, 2008; Clarke et al., 2009; Campion et al., 2009) as they evolved.

To simplify selection decisions, economically weighted genetic indices were released by ICBF in 2005 to aid farmers in comparing animals on genetic merit for expected progeny profitability on an across breed basis. Presently, the total merit economic breeding index for beef cattle in Ireland is called the suckler beef value (SBV) and this is made up of sub-indexes including weanling, carcass, daughter milk and daughter fertility (Cromie, 2011b). For the different sub-indexes and the SBV the animals are ranked based on a stars system (5 stars excellent; 1 star poor) to facilitate ease of interpretation.

However, a major hindrance to genetic progress nationally was the fact that sire identification was not routinely recorded on animals. Under EU legislation[18] only identification of the dam of the calf on the animals ID passport was compulsory - there was no mandatory requirement for sire identification. According to Evans et al. (2009) only 10% of the 960,000 commercial suckler cows in the ICBF database had a sire known. In terms of genetic evaluation, this meant that most animal production records were rendered ineffective and reliability figures, indicating the amount of confidence that a person can have in the index, were low. Consequently, in order to capitalise on potential benefits of traditional and evolving breeding technologies, such as genomics, a means of capturing this essential data was urgently required.

A further hindrance to genetic progress was the fact that data on other key production traits were not easily or routinely recorded e.g. calving difficulty score, animal docility, calf "quality" traits, live weights pre-weaning.

[18] Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97

2.4.2 Genomics

Genomic selection is a genetic evaluation tool in cattle which involves translating the DNA signature of an animal into its genetic merit for a range of performance traits including the suckler beef value. As DNA is present in all individuals since birth, genomic selection facilitates a more accurate prediction of genetic merit even when the animal is still a calf. Improved knowledge on the genetic merit of an animal should facilitate more informed on-farm selection decisions with the eventual outcome of increased genetic gain for a range of performance traits and therefore greater farm profitability. Using data gained from the implementation of genomic selection in Irish dairy cattle since 2009, genomic selection is expected to increase genetic gain by up to 50%; however this is dependent on good accuracy of selection for which the main requirement is individual animal performance data on a very large number of animals of known parentage.

Ireland could be the first country in the world to release official national across-breed beef genomic evaluations. It would be difficult to achieve this status without providing an incentive, such as the Suckler Welfare Scheme, or making it obligatory to record information on each animal born. Statistical analyses of all data collected from the suckler welfare scheme clearly shows that it is of very high quality. However, research on genomic selection is on-going. Therefore data collection is essential to delivering on an effective genomics programme for the following reasons;

1. A large 'reference' population of animals with known ancestry and on-farm performance is required to estimate the effects of different DNA signatures which can then be applied to young animals with no performance data of their own. Without the recording of sire information on all animals, the carcass data and other performance data routinely collected could not be used for breeding and genomic selection. Greater recording of hugely important traits like calving difficulty, calf quality and calf docility have facilitated more accurate genetic evaluations, and therefore genomic evaluations for these traits.
2. On farm performance records (calving difficulty, weanling quality, docility and carcase data) as well as parentage information will need to be continually collected to facilitate more accurate genetic/genomic evaluations and thus greater genetic gain as well as for monitoring of genetic changes, and allow for validation of evaluations.

3. Milk yield and fertility are now recognised as the main traits that need to be targeted in beef breeding. Unfortunately because of the low level of data recording prior to the suckler welfare scheme it may not be possible to undertake genomic selection for these traits; this is because these traits are more lowly heritable. However, if the high quality and quantity of data recording persists for several more years it will be possible to undertake genomic selection for these traits.

Genomic selection is a new technology and is estimated to be worth at least €8 million annually to the Irish dairy industry which is cumulative and permanent with considerably greater gains achievable once an optimal breeding program is implemented. The gains could potentially be greater in beef because of the greater accuracy of selection of stock bulls which predominate on Irish beef farms. It is recognised that accurate genomic evaluation in turn relies on accurate pedigree and data recording.

2.5 Land-Use Activity

Suckler cow production is an important land use activity throughout the country, but especially so in marginal land areas where dairy or tillage production is both very challenging and not economically feasible. Without suckling, land in disadvantaged areas would be significantly under-utilised, resulting in some land abandonment with consequent impacts on grassland dependent biodiversity and no economic activity in many parts of the countryside. It is an EU priority to have balanced regional development and farming activity on all land, whether marginal or prime land.

A criticism of the premium per head regime that applied on sheep, male cattle and Suckler cows for over 20 years up until 2004 was that it had no quality criteria attached to it. This meant that there was only a limited incentive to produce better quality animals. Following the shift to a payment per farm basis in 2005 all stakeholders agreed that retention of a strong suckler herd was key to Ireland having a beef industry of substance post-decoupling. It was also recognised that structural and farm inefficiencies in relation to suckler farming would need to be resolved.

A major difficulty in making progress in profitability was that there was insufficient data on many aspects of the National herd in relation to key efficiency indicators such as fertility, calving interval, and most profitable bulls to use. Genetic gain in the suckler herd was below par, and impossible to measure due to the lack of basic data such as sire details on animals born each year. The limited incentive to produce quality animals during the coupled regime meant that a targeted scheme to address and progress a number of breeding, quality & welfare issues was a high priority for all stakeholders post decoupling.

2.6 Coordination with overall DAFM strategy

2.6.1 Agrivision 2015

The Agrivision 2015 strategy document set out a plan for the sector to 2015. Recommendations were set out to facilitate and encourage a more profitable industry. A number of specific actions relate to the suckler herd in the Action Plan and include;

- Recognising the critical importance of the suckler herd to the Irish beef industry, the Department will consider what measures are required for the suckler herd in the context of decoupling;
- With support from DAFM, the Irish Cattle Breeding Federation (ICBF) will intensify its efforts to deliver a significant increase in the rate of genetic improvement of beef cattle through a combination of improved breeding schemes, greater use of artificial insemination, genetic evaluation and information services to all sectors of the industry.
- The Department, in consultation with the industry, farm organisations and other interests, will explore the possibility of including a cattle breeding measure in the RD programme 2007-2013.

2.6.2 Food Harvest 2020

Food Harvest 2020 is the Government's current strategy for the development of the Irish Agri-Food sector to the year 2020. The Strategy is built around the themes of acting smart, and thinking green to achieve growth. Part of the smart concept is to increase levels of productivity and competitiveness, and this can be achieved on beef farms through a greater adoption of best practice, genetic improvements and the development of efficient production systems. Regarding genetic improvements the report states that DAFF and the livestock

industry should continue to support ICBF in its programme of genetic improvement and product quality and continues that the Suckler Cow Welfare Scheme is also playing an important role in this regard.

The report identifies the green, sustainable marketing opportunity that the Irish agri-food sector has, but also states that it must demonstrate it credibly into the future. In this marketing focus it proposes the development of a Brand Ireland, as an umbrella brand for Irish food and drink, and within this it identifies the continuous improvement and operation of the highest standards of animal health and welfare by Irish producers as being necessary. It also highlights the growing consumer interest in issues such as animal welfare.

The report identifies specific targets for each sector, with a target of a 20% increase in the value of beef output by 2020 identified as being achievable, this sectoral target then is expected to contribute to the overall growth targets set out in the report. The report also states that a viable suckler cow herd of sufficient size is fundamental for the development of the beef industry and that live exports which operate at the highest standards of animal welfare will continue to constitute a valuable outlet in the future.

As part of the implementation of FH 2020, a Group was established to make specific recommendations on how the 20% increase in beef output could be achieved. It concluded that the Suckler scheme delivered a number of critical benefits to the value of beef output and recommends that the scheme be retained beyond the current five year programme. It also recommends that the scheme be expanded to include the collection of extra quality and performance data from farms.

2.6.3 Teagasc Farmers Journal Better Farm Beef programme

Teagasc in conjunction with the Irish Farmers Journal run a pilot scheme called the BETTER farm beef programme. Its main aim is "*to develop a road map for profitable beef production through improving technical efficiency within the farm gate"*. The 16 farms participating in the programme are suckler cow based enterprises and represent a range of production systems. The BETTER farm programme focuses on boosting profitability on farms by reducing production costs and increasing farm output through improved animal performance.

A three-year plan for each of the farms is drawn up and targets set. Over the course of the programme the objective is to develop the necessary strategies to ensure that these targets are met. A major focus of the programme is on animal breeding and the Scheme literature state that *"The future of the suckler herd depends on a planned approach at farm level to increasing the genetic quality of the breeding herd"*. Inefficient cows and bulls in the herd must be identified and culled using identification from the ICBF HERDplus. Sires are selected to suit cow type. The programme also focuses on animal and grassland management practices with regular monitoring of performance.

2.6.4 Bord Bia Quality Assurance Scheme

The Bord Bia Beef Quality Assurance Scheme (QAS) is an integrated scheme involving the producer and the processing plant working in partnership to provide the customer with quality assured product. The scheme describes the essential quality assurance requirements from primary production through factory processing to final despatch which are necessary to meet customer requirements. In addition, the scheme lays down additional standards to be complied with at each step of the production chain. The Scheme was accredited under EN45011 in 2004 and covers approximately 32,000 beef farms.

The QAS is open to both processors and producers. Producers seeking membership can initially apply directly to Bord Bia or through their meat processor. The application will then be evaluated and, if appropriate, a full independent audit of the producer will be carried out to evaluate the capability of the applicant to meet all the requirements of the Standard. This audit will be conducted by an independent auditor from a Bord Bia appointed inspection body. When the producer is deemed to have complied with the requirements of the Standard, the herd will be considered for certification under the Scheme. When certified, the producer will be issued with a certificate for the herd which will be listed on the Bord Bia register/database. Before the certification expires, the producer will receive a reminder letter from Bord Bia advising that a further audit is required to maintain certification.

Producers are obliged to comply with a number of different requirements in areas such as:

- Identification and Traceability
- Animal Remedies
- Animal Feed and Water
- Best Practice Guidelines

- General Stockmanship
- Specified Management Tasks: Cattle

There are a number of animal welfare measures under the QAS which would be similar in aim to the Suckler scheme e.g.

- Disbudding (where required) must be carried out before 2 weeks of age using a heated disbudding iron and ideally using a handling crate.
- Where disbudding takes place after 2 weeks of age, a local anaesthetic must be used
- Dehorning must only be carried out by a registered veterinary practitioner using appropriate anaesthesia and pain relief drugs.

Chapter 3: Suckler Scheme

3.1 Introduction

This Chapter sets out the background to the Scheme as well as its objectives and the rationale behind these objectives. The Chapter also provides a brief overview of animal welfare schemes in operation in other EU Member States.

3.2 Background to the Suckler Cow Scheme

The Suckler Scheme was introduced in January 2008 to run for a maximum five years until end-2012. It is 100% funded by the National Exchequer. The Scheme received EU State Aid approval in October 2007 and was originally budgeted to cost €250million over the five years of the scheme. The rate of payment for eligible suckler cows in 2008 was €80 (€82 if applied online) but due to greater than expected numbers applying and budgetary constraints, the rate was reduced for 2009 and subsequent years to €40 and (€41 for online). Only one application is required to cover the five years of the Scheme. The Scheme was open to all active Suckler farmers, however where a farmer was an active Suckler farmer in 2008 and did not apply to join the Scheme in 2008 he/she is not allowed to join at a later date. New entrants to Suckler farming are eligible to apply when they commence farming.

The objectives of the Scheme[19] are:

- Enhance welfare standards for animals produced from the suckler cow herd:.

- Improve husbandry standards at weaning time leading to reduced illness and mortality and enhanced health of the National herd;

- Provide education and knowledge building among farmers on best practice in suckler herd health and welfare;

[19] DAFF Suckler Scheme Terms and Conditions 2010

- Improve the genetic quality of the National suckler herd:

- Improve the competitiveness of the Irish beef industry and the quality of the beef produced;

The Terms & Conditions arising from the Scheme and the rationale for these are outlined in more detail in Table 3.1 below.

Operation of scheme:

Initial application - farmers with Suckler cows were identified from the AIM system and contacted. They had to express an interest in joining the scheme prior to 31 March 2008. The scheme was the first DAFM animal based scheme to be run totally off the AIM system i.e. farmers did not have to write out individual tag numbers each year on cows for which they wished to receive payment. Once the application is lodged the farmer registers his animals through the Animal Events System, run by the SWS on behalf of the DAFM. In addition to under-taking the requirements of the scheme outlined below, the farmer must record the data on areas such as calving details and identity of the sire, and submit them through the Animal Events System to SWS who process the information on behalf of the ICBF.

2. ICBF, though SWS, posted a copy of the Animal Events recording book to each farmer that wished to join the scheme. A number of information meetings were held at Teagasc offices and marts to provide assistance to farmers who had any queries on filling in the extra details (sire & calving ease) in the book.

3. Other data required under the scheme is collected in pre-weaning, and post-weaning forms. These forms were pre-populated with calf tag numbers to allow for easier form-filling by the applicant. Significant planning and discussions were held between DAFM, ICBF and farmer groups in the design of these forms to keep them as simple as possible.

4. Pre-weaning information to be collected included disbudding, castration and date of meal introduction. Applicants returned this information when meal was introduced.

5. Post-weaning information was returned when calves were weaned. Information on this form included docility, calf quality, and weight if available.

6. Once the applicant had submitted the relevant information to ICBF, then DAFM was in a position to pay the premium, subject to compliance with the Terms and Conditions of the Scheme, (see Table 3.1 below).

A series of IT checks are undertaken to ensure that all of the criteria has been complied with and if all is found to be in order a payment run is then undertaken. Payment runs are undertaken weekly for the current year and less frequently for previous years.

If all is not in order the animal is then marked as rejected or deleted and an error code is applied depending on the error. Initially in 2008 the Suckler Welfare Section endeavoured to deal with the cases on an individual animal basis but this proved unmanageable as there was in excess of 1million tags and it meant repeated visits to the same file. With effect from 2009 born animals it was decided that errors would be addressed when herds had been through the full validation process, i.e. all of the data had to be submitted for each of the measures or a movement of either the dam or the calf had taken place, thus minimising the amount of times in which a file had to be visited.

Lists are obtained from the IT Services of DAFM of cases where all animals have been through the validation process and where errors have been identified. On this basis the Suckler Welfare Section then issue letters to the herdowners in an effort to resolve the queries. Some of the letters are seeking additional or supporting information and in the others the herdowner is advised that one or more animals are ineligible for payment for not having complied with all of the Terms and Conditions. The herdowner is entitled to a review of this decision. If at review stage the decision is upheld to disqualify the animal(s) the herdowner has the right to appeal to DAFM's Appeals Office.

In addition, lists are obtained of herds who are to be disqualified from the Scheme e.g. have not completed any of the required measures, had not undertaken the training course. These herdowners are notified as such and are also entitled to seek a review of the decision and ultimately to the Appeals Office if unsuccessful at Review stage.

3.3: Rationale for Scheme Measures

Each of the Scheme's measures was designed to address a specific issue and further details on the rationale behind each of the measures is outlined in Table 3.1 below.

Table 3.1: Summary of Suckler scheme conditions necessary for Payment[20]

Measure	Rationale
• **Measure 1 - Calving details** Each calf must be registered using the ICBF Animal Events System within 27 days of birth. An Animal Events Book is issued to each applicant once the application form is lodged. It is also possible to record this information using the internet. Details of sire of calf and calving survey must be recorded in addition to the mandatory calf registration data for each calf born.	When registering the birth of the calf, additional information, over and above the existing obligations, must be supplied by the farmer. This necessitated registering each calf using the ICBF animal events system and additional information provided post-calving included sire identification and calving difficulty score. This new information permits linkage of animal details recorded at birth with subsequent performance measurements, such as carcass traits, and as outlined previously, provision of sire ancestry details dramatically increases the information available for genetic evaluations.
• **Measure 2 - Disbudding of calves** Disbudding of calves must be carried out within 3 weeks of birth, except where the horn buds do not emerge within this period, or for animals that are naturally polled.	Disbudding/dehorning of calves are routine procedures carried out on cattle to facilitate management. Horns on cattle can cause bruises and other injury to other animals and also can be a hazard to humans. Therefore, disbudded/dehorned cattle are safer to handle and cause fewer injuries and, also require less space at the feeding trough. Legally, animals with horns cannot be offered for sale in a mart. If calves are disbudded early in life, it is less stressful as the horn buds are not yet attached to the skull. Research shows that the stress response to disbudding is significantly lower than to amputation dehorning, inferring that the latter is more painful (Stafford and Mellor, 2005). Consequently, disbudding of calves within

[20] Farmers must complete all measures under the Scheme to be eligible for payment.

	three weeks of birth is one of the requirements of the scheme. The only exceptions are where the horn buds do not emerge within this period, or for animals that are naturally polled.
• **Measure 3 - Castration of calves** It is not compulsory to castrate all male calves under this Scheme. However, where calves are going to be castrated, they must be castrated at least 4 weeks prior to weaning date, or at least 2 weeks after the calf has been weaned.	Castration of male beef cattle is a management practice in beef production systems where, for many reasons, males are produced as steers rather than as bulls. Research at Teagasc Grange, shows that castration procedures on calves are less stressful when performed at younger ages (Ting et al., 2005) and methodologies to minimise the undesirable effects of castration are available. It is illegal to castrate cattle over six months of age without veterinary intervention and use of anesthesia.
• **Measure 4 - Minimum calving age** The average age of heifers calving for the first time must be 24 months, and in no circumstances will an animal calving for the first time at less than 22 months of age be eligible for payment. However, there will be a tolerance, depending on the number of first calved heifers aged over 22 months of age in the herd.	In suckler beef production it is critical that replacement heifers be selected, grown and managed to guarantee adequate reproductive performance. This will ensure not only that heifers are regularly cyclic at start of the breeding season but that heifers are on a growth rate trajectory to reach 85-90% of their mature weight at time of first-calving, have improved calving ability and consequently, reduced calving difficulty (dystocia), lower calf morbidity and mortality and, better reproductive performance subsequently (Diskin and Fitzgerald, 2011). Heifers calving too young are generally too light, causing adverse effects on all the parameters identified above. This results in detrimental effects on animal welfare and higher associated veterinary and labour costs coupled with greater production losses. Consequently the Suckler Welfare Scheme introduced a requirement that average age of heifers calving for the first time must be 24 months, and an animal calving for the first time at less than 22 months of age will not be eligible for payment.

• **8.5 Measure 5 - Appropriate weaning procedures** The minimum age that a calf can be weaned as part of this Scheme is **8 weeks** of age. This Measure is comprised of three different actions: • **8.5.1 Meal (concentrates) feeding** Concentrates must be introduced to calves a minimum of 4 weeks before weaning. The meal shall be of the appropriate quality and standard and must reach certain quantities over time. Meal feeding must be continued through the weaning process for a minimum period of 2 weeks after weaning • **8.5.2 Graduated weaning** Abrupt weaning of all animals at the one time is not permitted. For herds with more than 10 suckler cows, a gradual weaning procedure must be followed when weaning, with the following being the procedures permitted; • **8.5.3 Sales procedure** All animals must have been weaned a minimum of 2 weeks before they can be sold, or moved from the herd.	Weaning of beef calves is a necessary husbandry practice involving separating the calf from its mother, resulting in a breaking of the maternal-offspring bond and removal of milk from its diet. It is usually associated with simultaneous exposure of calves to a range of social and environmental stressors (Enriquez et al., 2011). Research at Teagasc, Grange has indicated that abrupt weaning *versus* not weaning is stressful to the suckler calf with alterations in immune function and hormonal mediators of stress evident 7 days post-weaning (Hickey et al., 2003; Lynch et al., 2010). Imposing additional stressors around weaning time accentuates the distress (Weary et al., 2008) and Grange research has shown reducing the cumulative effect of multiple stressors at this time lowered the stress response in the beef calf (e.g. Lynch et al., 2008). In practice, it was common (prior to introduction of the Suckler scheme) for calves to be abruptly weaned and immediately transported to the livestock mart for sale. The possible combination of weaning, transport, mixing with other cattle, spending time at the livestock mart, transport to a new premises, housing and introduction to a new diet, meant that weaned calves were exposed to multiple stressors coupled with simultaneous exposure to new diseases. Stress can induce changes in immune function that may leave cattle more susceptible to disease. Change in the functional activity of these immune measures is impaired for up to 7 days after weaning (Lynch et al., 2010). For the recently weaned calf, susceptibility to bovine respiratory disease was a particular problem. Consequently, the rationale behind the "Appropriate weaning procedures" measure in the Suckler Welfare Scheme was to disentangle and alleviate some of the stresses identified above and, prepare the calf for weaning and associated practices around that time. The procedures stipulated are based on Teagasc recommendations (Drennan, 1993; Fallon et al., 1998, 2002).

8.6 Measure 6 - Animal Events Recording Applicants must complete and submit all the information as required in the Animal Events System through the ICBF within 12 months of the birth of the calf. This also includes all data for each Measure in this Scheme.	This measure is a direct extension of Measure 1 and includes the information collected from each measure of the scheme, plus additional information pertaining to calf docility, calf quality and animal weight (if available) near the time of weaning. The Animal Events system collects data on those cattle breeding events (e.g. calving, birth, identification) that are first known to the farmer.
8.7 Measure 7 - Training and Education It shall be mandatory for an approved applicant to attend a suitable training course organised by Teagasc or the Agricultural Consultants Association (ACA)	The obligatory training sessions covering the scheme covered instructions and directions to farmers on procedures for carrying out disbudding and other information on welfare and animal husbandry.

3.4 Animal welfare schemes operating in other EU Member States

There are many differences in production conditions and priorities for livestock sectors between EU Member States, preventing a direct comparison of the various schemes. However, the suckler scheme in Ireland has many similarities with schemes operating in other MS in that it is based around the principle of improving specific management issues which would result in a more sustainable and profitable farming system. EU Rural Development policy is designed to target specific priority areas such as improving competitiveness, improving land management and the environment, to ensure the sustainable development of rural areas. Council Regulation 1698/2005 identified animal welfare as having a key role in improving the quality of animal production and as being a priority area to be addressed across EU MS. It recognised the diversity of production systems across the EU ranging from remote rural areas to productive lowland farms, and that member states could implement schemes based on their own production conditions.

The Regulation provides for payments to farmers who complete undertakings in excess of mandatory standards. A number of countries have implemented welfare schemes, including

Germany, Italy, and Scotland. Scheme requirements contain elements from at least one of the following general areas:

- Prevention of pathologies mainly determined by farming practices or/and keeping conditions
- Housing conditions, such as space allowances, bedding, natural light
- Outdoor access
- Water and feed closer to their natural needs
- Absence of systematic mutilations, isolation or permanent tethering.

The various schemes include works to be completed by the applicant such as decreased stocking density of animals per hectare, more access to grazing ground during housing, increased straw usage during housing, exercise areas, improved access to watering, increased ventilation systems in housing, improved feeding equipment, implementation and maintenance of a health care plan for the farm, implement a farm plan to improve disease prevention, monitoring and benchmarking of various production indicators, improvements to breeding, implement a proactive scheme for the use of vaccines and routine medications on the farm.

Specific examples of schemes implemented are:

1. **Germany:** German cattle production conditions typically rely on long indoor housing periods. The Animal welfare scheme in operation there provides payments to allow animals greater outdoor access to summer pasture and increased comfort during housing. Extra costs for the farmer associated with modifying production conditions are compensated through the welfare scheme which provides for greater access to summer grazing, increased housing area, straw bedded housing during winter. Payment of €94 per cow per annum.

2. **Scotland:** Five year management plan drawn up for the farm. Actions include a biosecurity action plan for the farm, control programmes for specific diseases on the farm (mastitis, pneumonia, Johnes, BVD), collection of farm data (calving & production data, disease incidence) to allow for benchmarking against other farms.

Payment is a maximum of €1000 per farm per annum depending on the options selected.

Conclusion:

The Terms of Reference for this Review included an assessment on whether the objectives of the Suckler scheme were compatible with both national and EU policy at the time in terms of improved animal welfare and better recording of genetic data. The Objectives are compatible with both National and EU policy.

Chapter 4: Programme Logic Model and Methodology

4.1 Introduction

This Chapter sets out the logic behind the schemes and the methodology used to assess if the schemes are efficient and effective.

4.2 Programme Logic Model

The Programme Logic Model maps out the structure and logical linkages of a programme. It provides a systematic and visual way to present and share understanding of the cause-effect relationships between inputs, activities, outputs and outcomes (results and impacts) each of which are arranged to achieve specific strategic objectives.

Table 4.1: The Generic Programme Logic Model

Components of the Programme Logic Model	**Definition**
Objectives	What was the overall objective of the scheme
Input	What goes into a programme – physical and financial resources
Activity	Actions that transform inputs into outputs
Output	What are produced by a programme
Result	Effects of the outputs on targeted beneficiaries in the short or medium term
Impact	Wider effects of the programme from a sectoral/national perspective in medium/long term

The programme Logic Model for the Suckler Scheme was agreed by the Steering Group at its meeting in February 2011 and is contained below at Table 4.2

Table 4.2 Programme Logic Model – Suckler Scheme

Objectives	Input	Activity	Output	Result	Impact
Enhance welfare standards for calves and weanlings from the suckler herd. Improve farmers knowledge on herd health, welfare practices and genetic improvement. Improve husbandry standards and genetic quality leading to improved competitiveness of the Irish beef industry and the quality of the beef produced.	Exchequer funding/support. DAFF, ICBF and Teagasc resources	Notification of scheme Processing applications Verifying Eligibility Making Payments Conducting training Recording of collected genetic data Inspections Analysis of data Applying penalties/disallowances	Number of Scheme participants Numbers of farmers trained Numbers of animals registered, weaned & castrated as per scheme requirements Improved data collection by ICBF (number using *animal events*) Improved data (both ancestry i.e. sire & calving ease) and performance (weanling quality, docility). Feedback data to farmers.	Improved health and welfare of calves and weanlings from suckler herd Enhanced Genetic evaluations Improved knowledge of farmers in terms of better weaning, and value of utilising ICBF services. Use by farmers of higher rated bulls for breeding and upgrading of female breeding stock	Long-term improved awareness and implementation of animal welfare practices. Use of higher genetic merit in beef breeding. Improved competitiveness of Irish beef sector resulting from improvements in animal productivity.

4.3 Methodology

The methodology to address the evaluation questions in the Terms of Reference was agreed by the Steering Group at an early stage of the process and was based around the Programme Logic Model. The table below outlines a sample question:

Table 4.3: Components of the Methodology Table

Question	Sample
Issue	Was the husbandry and welfare of calves improved?
How to measure it	Questionnaire survey of professionals associated with the industry. ICBF data
External factors	Feed prices
Data required	Numbers of animals managed under best practice. Reduction in number of calves • disbudded >3 weeks of age. • castrated outside guidelines. Reduction in number of heifers calving <22 months of age. Observations on animal behaviour
Source of data	• Vets + AHI, Veterinary Ireland • Mart managers, • Weanling buyers / Exporters, • Bord Bia • ICBF • CMMS • AIM database

4.4 Data

This review made use of the following primary and secondary data in order to address the questions raised in the Terms of Reference:

4.4.1 Stakeholders' views

Two questionnaires (Appendix B) were sent to the scheme beneficiaries involved in the scheme. Full details can be found in Chapter 5.4

4.4.2 Data used in the analysis of Efficiency

- ICBF Database
- Scheme data on participation and payments 2008-2011
- Farmers' survey
- Scheme Administration Costs

4.4.3 Data used in the analysis of Effectiveness

- AIM Database
- Farmers' Survey
- Bord Bia survey of exporters and buyers
- SWS Registration of calves
- Veterinary practitioners' survey

Chapter 5: Consultation with Stakeholders

5.1 Introduction

This Chapter outlines the outcome of the detailed stakeholder consultation in which the Steering Group engaged. This was primarily based around questionnaires sent to individual farmers (both those who participated in the scheme and those who withdrew from the scheme since 2009) as well as bilateral meetings with the main farm organisations. The outcome of these questionnaires is also used where relevant elsewhere in the Review e.g. the analysis of the effectiveness of the welfare measures.

5.2 Stakeholder Consultation

The Steering Group engaged in detailed consultations with stakeholders over the course of its work with a two-fold approach:

1. Meeting with the four main farm organisations, at the Group's meeting on 7 April 2011. These four groups were[21]:

    - Irish Farmers Association (IFA)
    - Macra Na Feirme
    - Irish Sheep and Cattle Association (ICSA)
    - Irish Creamery Milk Suppliers Association (ICMSA)

2. A survey of individual farmers, both those who participate in the scheme and those who have withdrawn from the scheme since 2009. Both of these questionnaires along with the results can be found at Appendix B.

3. Meetings with:

    - Teagasc (to discuss) Animal welfare research – March 2011
    - Irish Cattle Breeding Federation – May 2011
    - Bord Bia – May 2011

[21] Full details can be found at Appendix C

5.3 Meeting with Farm Organisations:

The four Farm Organisations were invited to the April 2011 meeting of the Steering Group to discuss their views on the Suckler scheme and specifically whether the schemes represented value for money in their opinion and had been effective in meeting its objectives. The main issues which the Group wished to explore with the industry included:

Table 5.1 Issues discussed with Farm Organisations

Scheme Design

1. Why was there a need for this scheme and was this the only approach possible?
2. What is your view on the terms and conditions
3. Was training effective/necessary?

Scheme Administration

1. How was the scheme delivered?
2. Views on eligibility criteria and level of payments?
3. How was your experience inter-acting with DAFF, ICBF and Teagasc?

Scheme Impacts

What have been the impacts on e.g.

1. Collection and use of breeding data?
2. Welfare and husbandry practices?
3. Evidence of farmer up-take of better breeding data/improved sire selection?
4. The national beef herd?

Continued Relevance

1. Have training objectives been achieved?
2. Could alternative scheme be possible e.g. focussing only on genetic recordings?

Table 5.2 Summary of Main Views of the Farm Organisations

Issue	View
Overall view	The scheme is working very well and it's vital that there is high quality stock if the premium beef industry is to be maintained. The scheme is working well as a form of "quality assurance" for the market. The suckler cow herd is fundamental for the development of the beef industry which FH 2020 believes can grow by 20%. The impacts of the scheme are clear and include: • much better quality and improved health status of weanlings in the marts; • much higher demand from foreign buyers, particularly Italy. This demand had reduced considerably in the years immediately prior to the introduction of the scheme
	Biggest indirect benefit of the scheme has been to maintain the size of the suckler cow herd i.e. prevented the loss of 100,000 cows x €1,200 = €120m loss to the economy. Data, made up of a number of different factors contained in the presentation[22], claim a gain to the economy of €130-€150m per year.
Level of Premium	The reduction from €80 to €40 in the premium was disappointing and has lead to a reduction in suckler numbers. A further reduction will slash the herd numbers. Calf has to make at least €750 to break even and the margins are small. The €40 grant does not cover the costs for the farmer in terms of feed etc.
Breeding	Genetic benefits are a permanent legacy of the scheme. Genomics in beef is fast developing but can't progress without the scheme to provide the supporting data. The breeding elements of the scheme need a few more years for full analysis – it's a long-term project and needs as many farmers as possible involved. The genetic evaluations produced by the ICBF is very useful and will lead to changed behaviour by farmers. Only really coming into use now so needs longer to be fully analysed.
	Some of the recording of data under the Scheme is a public good rather than something for individual benefit.
Welfare	Welfare is now a serious market issue in many of Ireland's key beef markets. This could also be a major issue in the CAP 2013 negotiations and Ireland will be ahead of the game.
Online Part.	Online participation is an excellent idea and works well but the incentive of the extra €1 per calf is not enough. D/AFM should be incentivising farmers to move online as believe there will be significant cost savings for the State.

[22] The IFA opened the discussion with a presentation on their views on the Scheme.

Training	Has been very useful and has definitely brought about change in practices.
	Some training on how to interpret the ICBF Herdplus data should be considered. Farmers know it's useful but could use some help on how best to utilise it.
Q. Would farmers cease the welfare and breeding practices if scheme was stopped?	The welfare elements such as de-horning, minimum calving age would continue given the proven market benefits. The labour costs involved in graduated weaning and the effort required to fulfil the breeding obligations (form-filling on docility etc.) would likely be considered excessive in the absence of the premium.

5.4 Questionnaire

Two questionnaires (Appendix B) were sent to the scheme beneficiaries involved in the scheme, directed at both those still involved in the scheme and those who may have withdrawn. In total, 430 questionnaires were circulated and 170 were received in response giving a response rate of 40% which is considered very good for a stakeholder survey of this type. The results of the questionnaires are used primarily in the analysis in Chapters 6 and 7. The questionnaires focussed on:

- Scheme Administration
- Withdrawal from the Scheme (if relevant)
- Breeding
- Welfare
- Impacts of the scheme

In addition to the survey of the scheme beneficiaries, a survey was also circulated to veterinary surgeons to ascertain their opinion on the impacts of the scheme from a veterinary practice point of view e.g. asking whether the number of animals with respiratory conditions since the introduction in 2008 had increased or decreased. This was a smaller survey but considered useful by the Steering Group in order to try and provide data on areas such as respiratory illness where a deficiency on available data was clearly identified. The full details

of the veterinary responses are outlined in Chapters 6 and 7 and the full survey response can be found in Appendix A.

Chapter 6: Scheme Output and Efficiency

6.1 Introduction

This Chapter defines and quantifies the inputs and outputs of the Suckler scheme and then analyses the efficiency of the scheme primarily by examining the premium paid to the scheme participants. This Chapter also explores the issue of Deadweight and the Administration of the scheme and measures the efficiency of the scheme based on:

6.2 Scheme Inputs and Outputs
6.3 Specific information on data received e.g. sire, calving
6.4 Scheme Efficiency I:Calculation of Premium Rate
6.5 Scheme Efficiency II: Deadweight
6.6 Scheme Efficiency III: Administrative Efficiency/Staff costs

6.2. Scheme Inputs & Outputs

6.2.1 Scheme Inputs

The Inputs fall into four categories:

- Grants Paid: (Table 6.1 below)
- Administration Costs (Table 6.9)
- Training Costs
- DAFM allocation to ICBF (Table 6.8)

A summary table of the Inputs is at Table 6.2 below:

Table 6.1 Payments[2324] Made

Year of animal's birth	Amount paid 2008	Amount paid 2009	Amount paid 2010	Amount paid 2011	Total paid
2008	€31,749,105	€29,542,456	€1,806,377	€844,621	€63,942,559
2009			€22,143,406	€2,458,206	€24,601,612
2010			€7,483,032	€14,513,361	€20,996,393
2011				€12,280,000	€12,280,000
Total	**€31,749,105**	**€29,542,456**	**€31,432,815**	**€30,096,188**	**€122,820,564**

Table 6.2 Total Inputs 2007- date[25]:

Issue	Cost
Grants Paid	€122,820,564[26]
Administration Costs	€7,896,940[27]
Training	€3,230,000
DAFM Allocation to ICBF	€4,022,122[28]
Total	€137,969,626

[23] As at 10 December2011
[24] Any difference between the money paid and what would be expected to have been paid is attributable to penalties that would have been applied to herds where some of the animals were not in compliance with the Terms and Conditions of the Scheme.
[25] 10 December 2011
[26] Includes animals born to end -2011 on which payments have been made. There are still some outstanding payments from 2009-2011 born animals due to errors in the applications .
[27] Based on 2010 staff costs as a representative year
[28] As at end-September 2011

6.1.2 Scheme Outputs

The direct outputs of the scheme are closely aligned to the conditions that participating farmers had to comply with. The outputs can be quantified in terms of herds and animals. The Department's administrative controls and inspection controls would have ensured a high degree of compliance so the number of herds paid and the number of animals paid on are used below.

a. 43,637 herds were compliant in 2008 with the standards set out under the Suckler Welfare Scheme

b. The corresponding number of compliant herds for 2009 & 2010 are 34,986 and 30,830

c. 798,022 calves were reared in 2008 accordance with scheme conditions. This meant that these calves were at a minimum:

    i. Disbudded within 3 weeks of birth

    ii. Castrated 4 weeks prior to weaning or 2 weeks after weaning (if male and the intention is to castrate)

    iii. Were weaned at least two weeks prior to sale

    iv. Had their breeding data recorded on the ICBF database

d. The corresponding number of calves born in 2009 and 2010[29] paid to date were 617,256 and 571,694 respectively although the final figure is expected to be higher.

The number of herds and animals covered by the Scheme is summarised in the table below:

[29] NB Some payments on 2009 and 2010 born animals were made in 2011 or may be outstanding due to application errors.

Table 6.3 No. of Herds and animals paid for under Scheme to date [30]

	2008		2009		2010		2011	
	Herds	**Animals**	**Herds**	**Animals**	**Herds**	**Animals**	**Herds**	**Animals.**
Total no. of applications	53,999	1,013,122	54,740	887,243	55,221	847,178		
Eligible	53,999[31]	1,013,122	44,143	806,670	38,106	712,474		
Ineligible[32]			10,597	80,573	17,115	134,704		
Total no. paid	**43,654**	**798,022**	**35,525**	**617,633**	**30,830**	**510,869**	**20,783**	**307,000**

Almost 54,000 farmers applied to join the Scheme in 2008 for c. 1 million animals. Some farmers only submitted the application form but did not follow through with attendance at the training programmes or completion of the other forms. This resulted in the number being reduced to 38,106 herds and 712,474 animals eligible in 2010. The reduction in numbers is primarily as a result of non-submission of data required under the Scheme or non-compliance with the terms and conditions including non-attendance at the mandatory training course (7,000 herd owners). There were also approximately 3,000 voluntary withdrawals from the Scheme.

Table 6.4 below is provided in order to give some overview of the participation rates in the Scheme as a percentage of national suckler numbers from 2009-2011.

[30] As at 10 December 2011. Note: some animals born in a particular year may be paid for in a later year.
[31] No herds fall into the ineligible category in 2008 as their assessment concluded in 2009
[32] Assessments on applications received in 2008 took place in 2009 and therefore no applications were ruled ineligible in 2008.

Table 6.4 Suckler scheme cows as a % of national suckler herd

Year	Eligible suckler cows	No. of suckler cows paid	National Suckler numbers	Suckler Cows paid as % of national suckler herd
2008	1,013,122	798,022		
2009	806,670	611,633	1,134,900	53.9%
2010	712,474	510,869	1,070,700	57.6%

6.3 Breeding Data

Prior to introduction of suckler scheme, pedigree herds (~8,000 herds) were the main source of data (as they were more familiar with the benefits of data recording). There were over 50,000 suckler herds who were not actively participating in data recording.

All stakeholders recognised that change was needed among all beef farmers in terms of developing a culture of data collection, and greater interaction with the services of ICBF[33]. While progress was being made using only pedigree breeders herds, it was imperative that as many commercial herds as possible become involved in a data collection scheme. The small herd average herd size (c.17 cows) means that there is a minority of larger herds, and focusing solely on data collection in large herds would be insufficient.

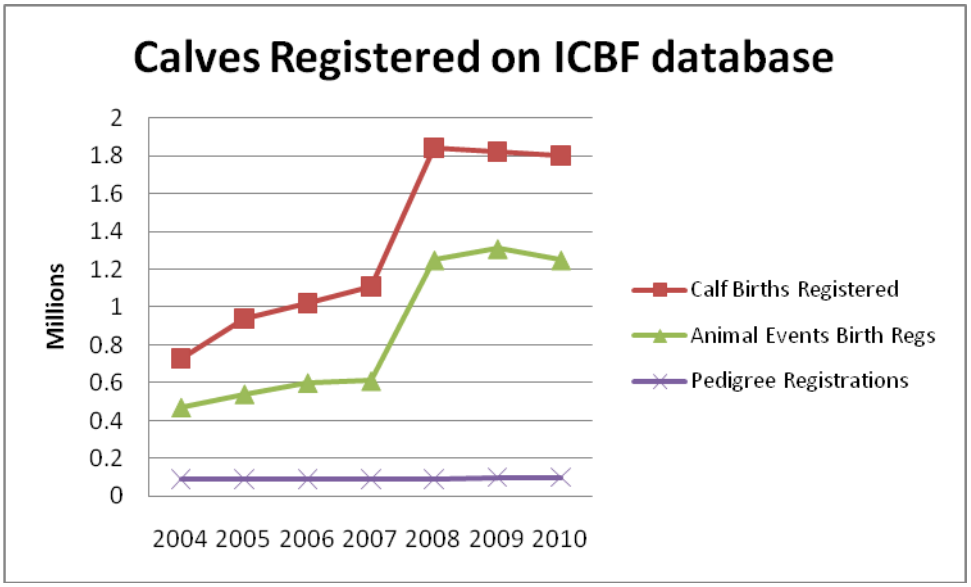
There is no minimum level of data needed annually by ICBF, each herd, irrespective of size, contributes valuable information, and this also allows smaller farmers the chance to participate in breeding activities and increase profitability.

The Suckler Scheme was the catalyst in 2008 for an increase in the number of herds engaged with the cattle breeding database. As soon as a herd is engaged with the ICBF database, it opens up a flow of data between the DAFM and other industry systems (e.g. Slaughter factories/marts/A.I Companies) that adds value to the data available to the farmer and to the wider industry.

[33] The role of the ICBF and the procedure for collecting the data is outlined in Chapter 3.1

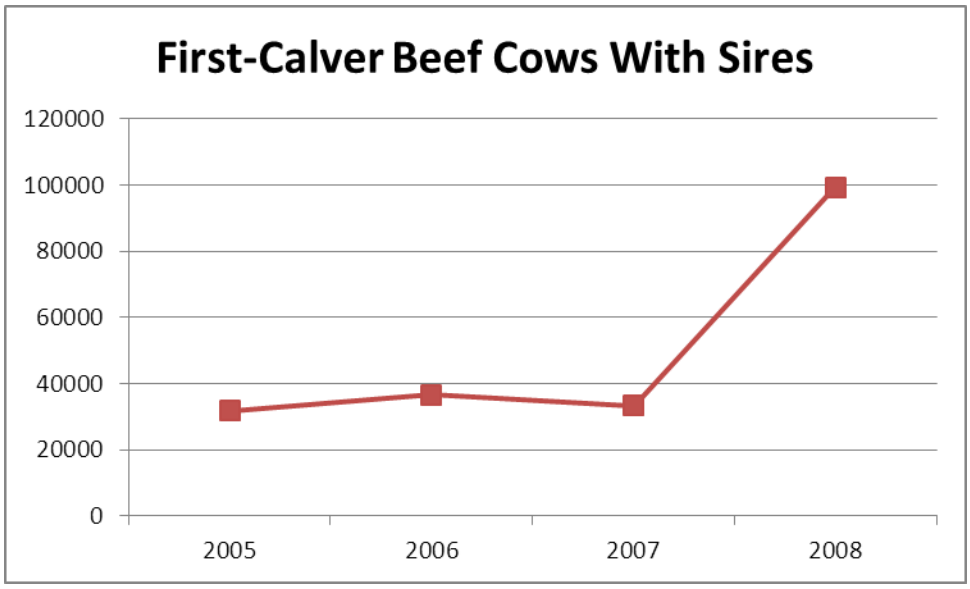
The engagement of more herds with the ICBF cattle breeding database has in turn given rise to a significant increase in the volume of calf registration data being captured from herds that are producing calves. This is the fundamental first step in achieving more accurate genetic evaluations. The trend in the graph below mirrors the trend in herds engaged with ICBF, with a large shift in 2008 on the back of the introduction of the Suckler Scheme. Continuing with the levels prior to the introduction of the scheme was severely hampering the National breed improvement programme, resulting in lost opportunities for farmers to increase profit through genetic gain.

Figure 6.1 Calves registered on ICBF database



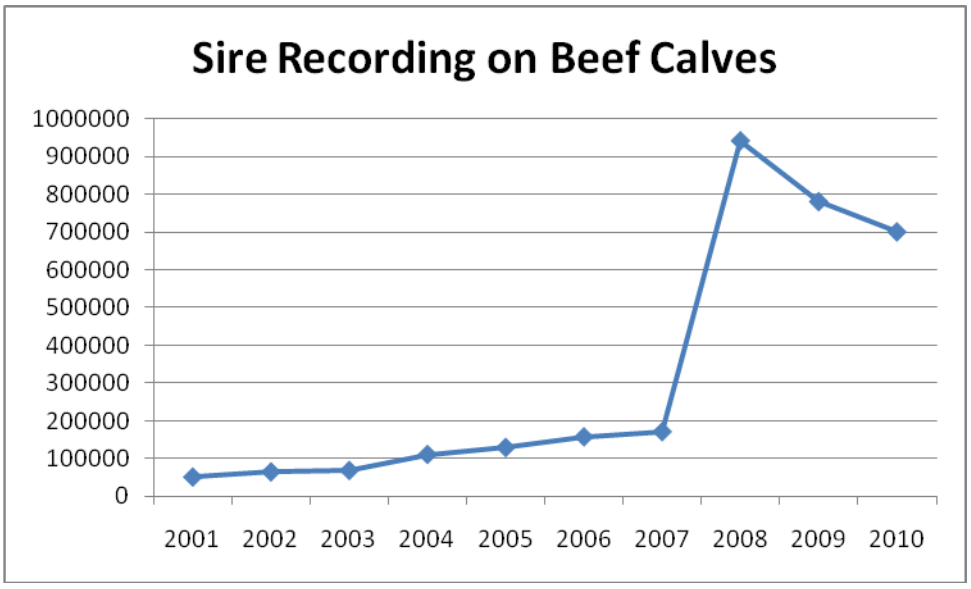
The longer term impact of having sires recorded will be the establishment of a national herd of beef cows, whose ancestry is known. The graph below shows the progress being made in this regard as a result of the Suckler Scheme.

Figure 6.2 First calver cows with sires[34]



The current trend in genomic technologies suggests genotyping of females in the national herd offers the most potential in exploiting the gains to be achieved from genomic technologies. However, it is imperative that the ancestry of these females is known before this is done. This has resulted in a significant increase in the requirement for sire recording on birth registrations. Prior to the introduction of the scheme, the trend in sire recording was increasing, but not at a level that would make a large impact on the quality or quantity of genetic evaluations on beef animals.

Figure 6.3 Sire Recording on Beef Calves



[34] These cows are born in the reference years i.e. 2005-2008 hence it is not possible to measure for 2010/11 yet.

The Suckler Scheme has also delivered an opportunity to capture 'Weanling Quality' and 'Calf Docility' data. The quality of the calf is recorded by the farmer, who generally has the calf on the farm for 5-7 months and is regarded as a reliable estimate of the overall performance, and thus profitability of any particular suckler cow.

Figure 6.4 Weanling Quality Recording

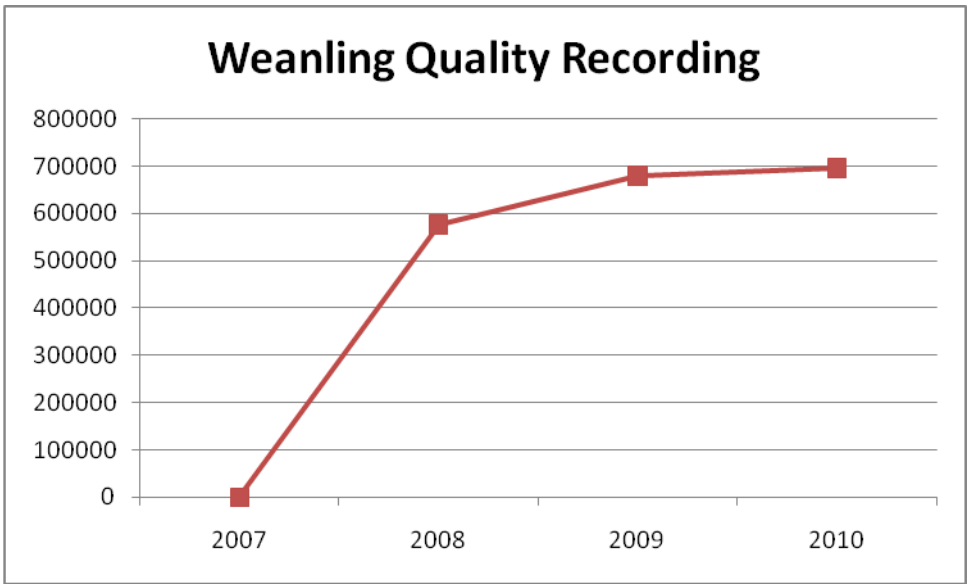
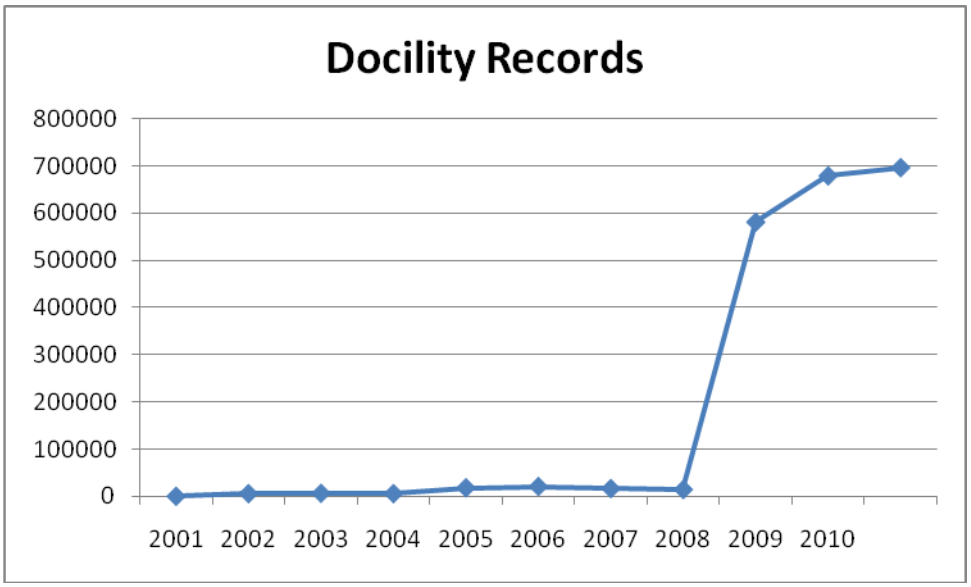


Figure 6.6. below highlights the increase in the availability of docility records.

Figure 6.5 Docility Records



6.4 Efficiency of the Scheme I: Premium Rate

Analysing efficiency involves analysing the ratio of inputs to outputs. The core question is – could more output have been achieved with the same input or could the same output have been achieved with a smaller input? For this scheme the most appropriate version of this question is whether the same output could have been achieved with less input. The premium rate paid is central to answering this question and the first part of the efficiency analysis looks at whether the rate paid was as low as possible to achieve the same level of participation. This is examined from two different perspectives:

(i) the calculation of additional costs for a famer participating in the scheme and

(ii) the changes to scheme participation that resulted from a reduction in the premium from €80 to €40

6.4.1 Calculation of Premium Rate in 2008

The scheme design from 2007 as submitted to the European Commission for approval proposed a premium of €80 per cow. This cost was based on Additional Cost/Income Foregone for a 20 cow herd on the following basis:

Table 6.5 Calculation of Premium Rate 2008

Reason	Cost (per cow)
Disbudding: The requirement to disbud within 3 weeks means it is necessary to carry out this task on three occasions in a 20 cow herd. Additional cost per calf of having to assemble both cows and calves twice extra is €5 based on 2 sessions @ 4 hours per assembly = 8 hours @ €12 per hour = €96/20 = €5	**€5**
Weaning: This involves a feeding regime, graduated weaning and also date of sale. Costs are estimated at: • Provision of Creep Feeder €1,000 over 5 years • Meal Purchase for 42 days @€220 per ton • Phased weaning means two extra occasions when both cows and calves are handled. Costs are 2 sessions @4 hours assembly = 8 hours @€12/hour = €96 • Labour to provide meals estimated for a period of 56 days @1 hour per day @€12 per hour = €672. Proposed Payment of 50%	**€10** **€12** **€5** **€17**
Record Keeping: Estimated at 16 hours /year = €192	**€10**
Animal Events Recording	**€12/14**
Transaction Costs	**€9**
Total	**€80**

6.4.2: Reduction in scheme rate

The premium paid under the scheme was reduced from €80 to €40 with effect from 1 January 2009 as a result of a much higher than expected number of applications for the scheme and the significant downturn in the national exchequer finances.

Almost 54,000 farmers applied to join the Scheme in 2008 for c. 1 million animals. This number has reduced to 38,106 herds and 712,474 animals eligible in 2010. The reduction in numbers is as a result of:

- voluntary withdrawals from the Scheme,
- disqualification for not having attended the mandatory training course, or as a result of failure to submit data for any of the registered animals,

- Single Farm Payment applications not submitted
- No animals in the previous year

The numbers participating in the scheme and the percentage change in numbers is set out in the table below:

Applications for participation in Scheme

Year	Number of herds in Scheme	% change
2008	53,999	
2009	44,143	-18.2%
2010	38,106	-13.7%

Reduction in Scheme Participation as a result of Premium Reduction

A 50% reduction in the scheme premium might have been expected to lead to a significant reduction in scheme participants of similar proportions but as can be seen above, the actual reduction was significantly lower at 18.2%. An analysis of the reduction in participants in later years, when the premium was €40, can be more accurately read as the natural decline. As can be seen above, this rate of decline was lower at 13.7% although this also needs to factor a potential residual effect resulting from the lowering of the premium in 2009. As we know from the farm surveys not all withdrawals from the scheme were due to the lower premium as some respondents also cited reasons such as the paper-work involved in the scheme or an exit from suckler farming.

It must be noted that there is a certain unreliability on the final figures as not all withdrawals from the scheme after 2009 were voluntary as some were disqualified for not having attended the mandatory training course or for submission of incomplete data. The difference between the drop-out between Years 1 & 2 as opposed to Years 2 & 3 is 8%. This indicates that the change in the premium rate caused a higher number to exit the scheme but it is a relatively small difference given that the premium rate halved. The most likely reason for this reduction is that most of the costs associated with participation in the scheme had been front-loaded, e.g. purchase of creep feeders, and so would have been incurred prior to the reduction in the rate and hence constituted sunk costs. It is probable that the participants in the Scheme saw

the benefits of participation and had also become accustomed to the measures and paperwork required as well as having made a commitment to a five-year scheme.

The €31 per cow per year allocation to scheme participants to cover the package of participation costs, as planned in the scheme design and implemented in year 1, appears excessive. It was assumed that the burden of work involved in record keeping, animal events recording etc. would prove a disincentive to some and that the scheme therefore needed to be made attractive enough to overcome this disincentive. Familiarity with the procedures should greatly reduce the perceived administrative burden after one year of participation. The model eventually employed of a higher premium in Year 1 followed by a reduced premium thereafter would have been an appropriate approach from the start as it reflects the set-up costs and initial changes to practices and record-keeping, which should then become established

6.4.3 Stakeholder views on Premium Rate

The issue of the level of the Premium was one that featured consistently in comments from stakeholders. As noted in Chapter 4.4, the four farm organisations who met with the Steering Group at its April 2011 meeting expressed disappointment at the reduction of the premium in 2009 and expressed a wish that a return to the original figure be considered.

However, expectations may have moderated in this regard given that the most recent stakeholder opinion on the premium, as expressed by the IFA in its pre-Budget 2012 Submission, states *"to encourage investment by farmers in the livestock sector, and stabilise the Suckler Cow herd, payment levels for the Suckler Cow Scheme must be maintained".*

As part of the farmer's survey undertaken for this VFM, farmers were asked if *"the premium covers the costs of participating in the scheme"* to which 37% said yes and 63% said that it did not. The survey questions on prices received for calves participating under the scheme indicated that a majority (52% of respondents) are receiving better prices. When asked to clarify how much this additional payment had been on average per head, 32% were receiving <€40 while 68% received greater than €40. When viewed in conjunction with Table 2.1 on prices for sucker weanlings from 2008-2011, it could be argued that the market response to

the Suckler scheme is now greater than the premium funded by the Exchequer for a majority of scheme participants.

Conclusions on Premium Rate:

The initial premium rate was attractive enough to encourage a very high level of participation in the scheme, such that the premium rate had to be halved after the first year due to over-subscription and budget restrictions.

The halving of the rate contributed to a reduction in the number of herds participating but the reduction in numbers was not as substantial as might have been expected. The initial oversubscription at €80 and the continued strong participation at €40 suggests that a similar level of output could might have been achieved with a lower input.

However it is thought that this pattern of participation would have been influenced by a herd owner's decision to commit to the five year scheme initially and having completed year one, having invested in creep feeders etc. continued participation was not the same decision as the initial decision to take part. The model eventually employed of a higher premium in Year 1 followed by a reduced premium thereafter would have been an appropriate approach from the start as it reflects the set-up costs and initial changes to practices and record-keeping, which should then become established.

6.5 Scheme Efficiency II: Deadweight:

Deadweight occurs when an activity grant aided by the State would have happened in any event, even in the absence of that grant assistance. The level of deadweight is the portion of output that would have happened anyway irrespective of the scheme. In the case of the suckler scheme the activities in question are the welfare improvements and data collection obligations.

6.5.1 Welfare

Estimates by Teagasc indicate that, prior to the introduction of the Suckler Scheme, the proportion of farmers implementing the practices stipulated under "Measure 2 - Disbudding of calves", to all their animals, was less than 20%. Similarly, approximations for the percentage of farmers that were applying the three actions specified under "Measure 5 - Appropriate weaning procedures" were:

- Meal (concentrate) feeding: 35%

- Graduated weaning: 10%
- Sales procedure: 5%.

6.5.2 Breeding

Records provided by IBCF for this VFM show that, prior to the scheme, the number of farmers providing information under "Measure 1 - calving details", more specifically identification of sire of calf, which is central genetic evaluation, was less than 12% of the levels achieved under the scheme. Similarly the animals engaged with ICBF were less than 50% of current levels and there is nothing to suggest that either of these would have improved in the absence of the scheme.

6.5.3 Farmer surveys

An additional indicator of whether deadweight has occurred is the survey of scheme recipients[35] and their opinions on the training provided and whether the scheme has brought about any changes in practices and whether they would now continue with these practices in the absence of the scheme.

The relevant survey questions asked were:

1. How would you rate the training provided in terms of improving your knowledge of welfare, breeding and value of recording breeding data?
Please tick one option only with 1 being no improvement and 5 being a large improvement?

No improvement				**Large improvement**
1	2	3	4	5
12%	14%	35%	19%	20%

2. Has participation in the Scheme meant that you have had to change your practices since its introduction?	Yes	54%	No	46%

[35] See Annex B

However it is clear that these answers are in contradiction with:

(1) the figures provided by Teagasc and ICBF above which have shown that a large majority of farmers have changed their practices since the introduction of the scheme;

(2) the Bord Bia Survey for this VFM which showed clear problems with the quality of the general health of some weanlings for export in the years immediately prior to the introduction of the scheme. This was believed to have damaged the reputation of Irish weanlings but market share and premium price have since recovered, as a result of the scheme, to a satisfactory level;

(3) Other questions within the farmer survey. e.g. the answer to Question F2 (i), (ii) & (iii), where ~80%, ~70% and ~75% believe the scheme "has been" important/very important in improving (i) animal welfare standards, (ii) recording of breeding data, (iii) changing sire selection. Therefore, by definition, at least 70 to 80% had to change their practices or those "improvements" cannot have happened. These figure(s) of 70 to 80+ % are more consistent with the ICBF data & Teagasc estimates above.

Conclusion on Deadweight:

- The data available on the issue of deadweight indicated certain contradictions and a certain unreliability which make a definitive conclusion on the issue extremely difficult.
- As with any large scheme which provides grants to bring about behavioural change, a certain level of deadweight was unavoidable as it would have been difficult to exclude farmers that were following good practices before the scheme was introduced but were still entitled to participate.
- The Scheme has a number of elements and for individual farmers some practices did not have to change at all whereas other practices like recording breeding data did. This complicates the estimation of deadweight and a single percentage figure estimating deadweight would not truly reflect the situation. Based on the evidence outlined above it is estimated that for different elements of the scheme deadweight varies from a low figure

of 5% for Sales Procedures to a figure of greater than 30% for meal feeding or disbudding. However the Suckler Scheme is a package of measures which it is unlikely any beef farmer was fully completing prior to the Scheme.

6.6 Scheme Efficiency III: Scheme Administration

Full details on the operating procedures of the scheme can be found in Chapt 2.2. A fuller assessment of the Scheme is outlined below looking in particular at

I. Staff Costs
II. Error Rates in Applications
III. Online Applications
IV. Inspections
V. Training costs
VI. DAFM allocation to ICBF

6.6.1 Staff Costs[36]:

Table 6.6 below shows the cost of the various staff from DAFM and the relevant Agencies using 2010 as the sample year representing the mid-way point in the scheme.

Table 6.6: Staff Costs

Grade	Number at Grade[37]	Median Salary	% of time	Median Salary	Direct Salary[38]	Total Salary[39]	Total Staff Costs[40]
PO	1	€89,237	5%	€4,461.85	€4,796.48	€6,186.64	€9,093.82
AP	1	€69,367	100%	€69,367.00	€76,823.95	€99,102.90	€145,681.26
HEO	2	€49,615	200%	€99,230	€109,897.23	€141,767.42	€208,398.11
EO	7.2	€37,320	720%	€268,704	€297,589	€383,889.71	€571,994.82
CO	20	€28,765	1720%	€494,758	€547,944.49	€706,848.39	€1,039,067.13
Total						€1,331,225.04	€1,974,235.53

[36] Staff costs are calculated based on Appendix F in revised RIA Guidelines from June 2009
[37] Includes FTE staff in Portlaoise, Ballybay and ISD
[38] Gross Salary plus Employers PRSI (10.75%)
[39] Direct Salary plus imputed pension contribution (29%)
[40] Total Salary plus allowances for overheads (47%)

As part of the survey of farm recipients, farmers were asked if they were satisfied with the way the scheme is being administered by the Department of Agriculture on a scale of 1-5 with 1 being very dissatisfied and 5 being very satisfied. The results are outlined below and indicate that a large majority are satisfied with the administration of the scheme.

Very Dissatisfied				Very satisfied
1	2	3	4	5
10%	11%	37%	20%	22%

6.6.2 Error Rates

It is very difficult to assess the level of errors as the DAFM IT system can only identify the level of errors as they exist at the moment and do not include errors that have already been corrected. However it is estimated that the error rate in the early years of the Scheme was as high as 50% and the Division in DAFM implementing the Scheme has identified that there is an average of 25 transactions per tag and a possible 60 errors can be made by applicants in the Scheme forms, per animal. Table 6.7 below outlines the current position on applications:

Table 6.7 Error Rates in applications[41]

Year	No of animals registered	No of animals with errors	% no of animals with errors
2008	1,013,122	178,913	17.7%
2009	887,241	193,975	21.86%
2010	847,178	128,108	15.12%

This table includes all animals originally in the Scheme including all of those who have subsequently withdrawn or have been excluded. The figures above would be consistent with the error rates in the AIM system which remain at approximately 14%. It would appear however that the level of errors is reducing. Initially in 2008 the Scheme was being administered on an individual animal basis. However this proved extremely inefficient as the

[41] As at 17 November 2011

same file had to be revisited several times.. With effect from 2009 born animals it was decided that errors would be addressed when each herd had been through the full validation process, i.e. all of the data had to be submitted for each of the measures or a movement of either the dam or the calf had taken place, thus minimising the amount of times in which a file had to be visited.

5.6.2 Online applications

The number of herdowners using the online system is reducing. In 2008 7,571 herds had at least one animal paid for using online system. This increased to 14,244 in 2009 but reduced to 7,668 in 2010. The reasons for the reduction are uncertain however it is felt that it is attributable to the fact that amendments cannot be made online. Amendments cannot be allowed online for auditing reasons as supporting documentation would not be available.

Among DAFM's commitments under the Croke Park Agreement is to move to an increasing level of inter-action with farmers online with a view to *"Further development of service provision online as the norm: initially to increase online take up of the Animal Identification and Movement system (AIM) & the Single Payment Scheme (SPS)"*. This is in light of the obvious cost benefits associated with moving applications online. In the case of the AIM system, the most recent version provided for agent access to the system. This agent facility allows farmers to nominate an agent to submit calf birth registrations and movements electronically to AIM on their behalf. This is to overcome issues outlined in the farmers survey such as lack of access to broadband, lack of training for farmers etc. This is also being tried for the Suckler scheme in 2011 which may help to reduce the significant administration costs of the scheme. It would also likely assist in tackling the issue of error rates outlined above. It may be necessary for DAFM to amend the scheme design for this or any future scheme in order to allow greater online access.

6.6.3 Inspections and Penalties

Inspections are carried out on 3% of herds under this Scheme. All participants in the Scheme are required to have a Single Farm Payment application lodged and these inspections are carried out in conjunction with other inspections being undertaken by DAFM, e.g. cross compliance, and therefore carry no significant additional cost. Penalties are applied on an ongoing basis, not just as a result of inspections but also as a result of the administrative

checks undertaken. The penalties are calculated having regard to the % of animals with rejections as against the number of validated animals. Payments are made on a continuous basis as the animals are weaned and found to be in order. If all of the animals have not been weaned and validated a penalty can be applied, some of which may subsequently be refunded as further animals are found to be fully compliant and validated for payment or increased as further animals are found not to have been compliant. Penalties of 1%, 3% and 5% are applied depending on the number of animals and the number rejected.

6.6.4 Training costs

Training events, organised by either Teagasc or the Agricultural Consultants Association, were held for participants over the first two years of the scheme. In total, over 47,000 scheme participants were trained at a cost of €3.23 million. The training was designed to be front loaded in the first two years to ensure farmers received training & guidance on all paperwork aspects, how to complete physical tasks, and the benefits of better breeding.

Each session was of 3 hours duration and focussed on:

- Overview of scheme and animal events system
- Best practice in disbudding, castration,
- Question and answer session attended by veterinary expert
- Weaning procedures
- Animal handling, including health and safety aspects
- Breed improvement programmes
- Selecting AI Bulls, purchasing stock bulls and breeding herd replacements

6.6.5 DAFM allocation to ICBF in respect of Suckler scheme:

There are incremental costs associated with ICBF supporting the Suckler Scheme which have been covered by DAFM. These costs are summarised in the following table:

Table 6.8 DAFM allocation to ICBF

Date of invoice	Animal event books Suckler Books, envelopes etc	Data keying	Call centre	Software & tech support	An Post	Total	VAT	Total & VAT
2007	346,450.00	0.00	0.00	20,000.00	187,500.00	553,950.00	116,329.50	670,279.50
2008	146,591.92	330,294.50	147,745.00	110,375.00	220,295.00	955,301.42	202,089.31	1,157,390.73
2009	116,216.96	175,834.16	123,446.04	71,840.00	64,775.00	552,112.16	115,151.67	667,263.83
2010	156,997.68	287,450.56	194,552.56	113,711.00	149,506.00	902,217.80	207,936.57	1,110,154.37
2011[42]	53,203.84	128,026.14	80,908.71	45,632.00	44,631.37	352,402.06	64,631.72	417,033.78
Totals	**819,460.40**	**921,605.36**	**546,652.31**	**361,558.00**	**666,707.37**	**3,315,983.44**	**706,138.77**	**€4,022,122.21**

6.6.5 Total Administration costs:

Administration costs for 2010 were used as the base year for calculation of scheme administration. The total administration costs of the scheme are estimated at:

Table 6.9 Total Scheme administration costs in 2010

Cost	Amount
Staff costs	€1,974,235
DAFF contribution to ICBF	€ 1,110,154
Total:	**€3,084,389**

These administration costs represent 9.8% of premia paid in 2010 under the scheme for that year. Assuming similar costs in the other four years of the scheme, this means an additional cost of approximately €15.4 million not including the cost of €3.23 million for training under the scheme.

[42] As of end-September 2011

This can be compared to other similar grant-aided DAFM schemes:

DAFM Scheme	Administration Costs[43]
Marketing and Processing	5.3%
Fallen Animals Scheme	2.4%
Suckler Scheme	9.8%
Installation Aid	18%

Conclusions on Scheme Administration:

- The administration costs (training, staff costs and DAFM contribution to ICBF) of the scheme are estimated at €18 million over the lifetime of the scheme. These are disproportionate to the level of the grants paid and when compared to other schemes of a similar nature in DAFM, particularly as this scheme has a large number of grant recipients.
- The main reason for the high costs can be attributed to the design and complexity of the scheme whereby farmers are eligible to apply on a per animal basis and several pieces of information have to be supplied at different times in respect of each animal. This requires significantly higher staff resources than if the scheme premia were paid on an annual per herd basis. Added to this is the treatment of errors in applications which have the effect of multiplying the resources required to complete the processing of an individual farmer's application.
- Other reasons for the higher than expected costs are the relatively low level of uptake of online applications
- The administration of the scheme has been positive for a majority of the scheme recipients.

Recommendations on scheme administration:

- Consideration should be given in these types of schemes to premia being paid on an annual per herd basis only. Similarly, error rates should continue to be applied on a per

[43] Costs assessed as part of a VFM Review

herd basis.

- DAFM and ICBF needs to accelerate its efforts to move scheme applications and participation online in view of the obvious cost savings. The issue of using Agents to submit data on behalf of the farmers who are not in a position to so themselves, as with the submission of data under AIM might be one possible solution.
- Single applications for multi-annual schemes should be avoided where possible as they significantly increase the administrative burden through issues such as change of herd ownership

Chapter 7: Scheme Effectiveness

7.1 Introduction

This Chapter analyses the effectiveness of the schemes under the following three headings:

I. Welfare

II. Breeding

III. Competitiveness

The analysis used the following sources of data:

- AIM Database
- Survey of Farm Recipients
- Survey of Farmers
- Bord Bia survey of exporters and buyers
- SWS Registration of calves

7.2 Welfare:

The Welfare elements of the Suckler scheme are designed to improve the well-being of the calves, by bringing about a permanent upward shift in welfare practices and thus bring about an economic benefit for the farmer in terms of better quality animal available for the market. As outlined in Chapter 3 the design of the welfare elements of the Suckler scheme were recommended best practice supported by scientific research in the area undertaken by Teagasc in recent years[44]. The Rationale for the inclusion of these measures under the Scheme can be found in Table 3.1.

However evaluating the effects of animal welfare measures can be difficult as the effects are often not directly measurable. The Steering Group agreed that the following would be used as the measures of the effectiveness of welfare elements of the Scheme:

[44] Teagasc presented this research to the Review Steering Group in April 2011

Table 7.1: Measure of effectiveness of welfare obligations

Data	Source
Rates of weanling (5-10 months) deaths.	AIM database
Rates of farm expenditure on veterinary fees to treat weanlings on e.g. respiratory illness.	Farmer's survey
Price paid for scheme weanlings vs. non-scheme weanlings.	Marts
Rates of dis-budding of older animals	Vet's survey
Feedback from exporters on quality of animals sold for export	Bord Bia (via survey of exporters and buyers)
Evidence of consumer demand for animals sourced from markets with high level of welfare	Bord Bia
Farmers' response on what they will do on Welfare in the absence of the Scheme	Farmer Survey

7.2.1 Rates of Beef weanling (5-10 months) deaths

The rate of weanling deaths between 5 and 10 months can be measured using the Department of Agriculture's AIM[45] database.

[45] AIM is the *Animal, Identification and Movement* system which is a generic traceability system for a number of animal species and which is administered by the Department of Agriculture, Food and the Marine.

Table 7.2 Rates of Beef weanling deaths 2006-2010[46]

Year	5 - 10 Mths wean. deaths in SCWS	Total Beef weanling deaths	Deaths as a % of Births	Valid (Paid For under SCWS) Suckler Cows	Total Births where Dam/Sire beef breed	5-10 Mths non SCWS Death rate
2006		16,648	1.5%		1,127,787	
2007		16,411	1.5%		1,102,526	
2008	5,586	17,783	0.7%	798,022	1,182,830	3.2%
2009	7,915	17,293	1.3%	611,633	1,042,948	2.2%
2010	5,632	14,026	1.1%	510,869	997,203	1.7%

This Table examines the rates of beef weanling deaths for weanlings both subject to the welfare measures of the Scheme and weanlings outside the scheme. From 2008 when the Scheme commenced it can be seen that the rate of deaths for Suckler scheme weanlings has been lower than non-Scheme weanlings in each of the three years measured but that the difference between the categories has been steadily reducing. This suggests that the welfare measures introduced under the Scheme, and the consequential market benefits, are having a positive effect on all beef weanlings in terms of rising standards. On the other hand the rate of Scheme weanling deaths rose from 2008-2009 and is still higher in 2010 than in 2008. However this is contradicted by the steadily decreasing number of deaths for non-Scheme weanlings over the same years thus making it difficult to draw any definitive conclusions from this table. It must also be noted that there can be factors in individual years which can influence weanling deaths outside of the control of farmer e.g. weather or flooding. It is clear that some more years' analysis will be necessary before a full picture on the effects of the welfare measures on weanling deaths is known[47].

7.2.2 The introduction of the 24 month age limit for heifers giving birth

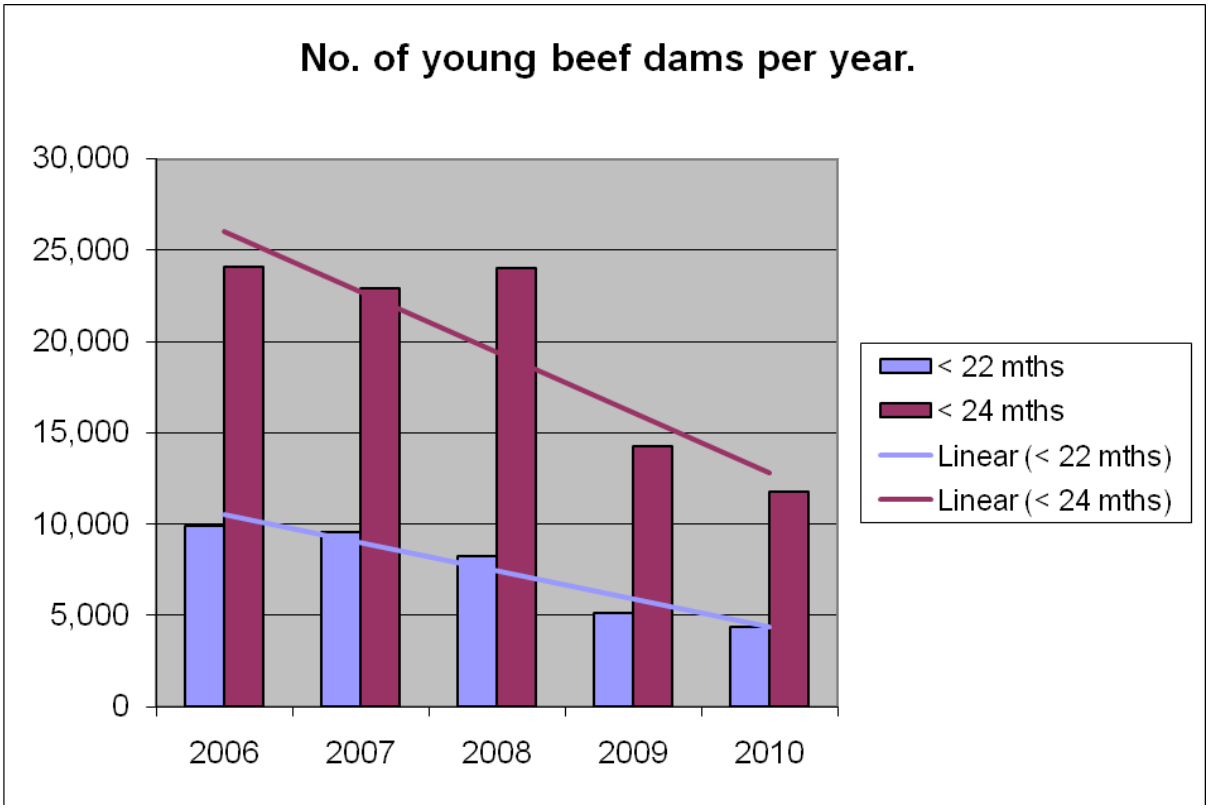
[46] For the purposes of this Review it was not possible to include data for 2011 as the majority of weanling deaths occur late in the year and there is also a lag period as the farmers notify the database. The 2011 figure will not be known until AIM statistics are completed in February 2012.
[47] See Chapter 9 for suggested Performance Indicators.

The Suckler scheme introduced a requirement that average age of heifers calving for the first time must be 24 months, and an animal calving for the first time at less than 22 months of age will not be eligible for payment.

Table 7.3 Age of suckler dam at time of first calving

Year	No of Heifers <22mths	No of Heifers <24mths	Total Births where Dam/Sire beef breed	<24 Mths as % of overall births	Reduction compared to 2006
2006	9,903	24,059	1,127,787	1.13%	
2007	9,566	22,903	1,102,526	1.09%	0.04%
2008	8,268	24,041	1,182,830	1.09%	0.03%
2009	5,125	14,282	1,042,948	0.70%	0.43%
2010	4,383	11,787	997,203	0.59%	0.54%

Figure 7.2: Age of dams at calving age



The introduction of the 24 month age limit for heifers giving birth as part of the Suckler Welfare Scheme in Ireland has been very successful with the halving of the numbers in the first two years of the scheme.

7.2.3 Rates of illness amongst weanlings

Data on Rates of illness amongst weanlings is very much lacking both nationally and internationally, thus making an evaluation of improved animal health difficult to ascertain. The reason for a lack of data can be for a number of reasons e.g. lack of post mortems on dead weanlings, and low levels of record keeping by farmers and vets.

One potential measure is the survey of Vets undertaken for this Review in which they were asked *"On a scale of 1 to 5 with 1 being large decrease and 5 being large increase, have the numbers of weanlings with respiratory conditions since the introduction of the SCWS in 2008 increase or decreased?* The response rate fell entirely into either Column 1 or 2 indicating, in the opinion of the Vets surveyed, that there had been a large decrease in the number of weanlings with respiratory conditions since the start of the Scheme in 2008.

7.2.4 Effects of weaning

In general, severely distressed animals can be more susceptible to infectious diseases thus severely reducing their economic value and one of the main causes of stress is inappropriate or abrupt weaning practises. To tackle this issue, the Suckler scheme requires that the minimum age a calf can be weaned as part of this Scheme is 8 weeks of age. The weaning procedures are designed to prepare the calf for stress associated with weaning, sale, transport or live export.

This Measure is comprised of three different actions:

Box 7.2: Scheme measures on weaning:

- **Meal (concentrates) feeding**

Concentrates must be introduced to calves a minimum of 4 weeks before weaning. The meal shall be of the appropriate quality and standard and must reach certain quantities over time. Meal feeding must be continued through the weaning process for a minimum period of 2 weeks after weaning

- **Graduated weaning**

Abrupt weaning of all animals at the one time is not permitted.

For herds with more than 10 suckler cows, a gradual weaning procedure must be followed when weaning;

- **Sales procedure**

All animals must have been weaned a minimum of 2 weeks before they can be sold, or moved from the herd.

Results from the farmer survey indicate that, in the absence of the scheme, 74% of famers

would continue with creep feeding and 56% with advanced weaning. Farmers also acknowledge that animals are getting a premium at the marts because they have been reared in accordance with the Suckler conditions. These two factors coupled suggest that the scheme will have a lasting impact on the weaning practices of at least 50% of scheme participants. Given the deadweight issue discussed previously this would indicate that the scheme has moved the percentage of farmers adopting good practice from approximately 20% to in excess of 50% and maybe higher. This indicates that the scheme has been reasonably effective under this heading.

7.2.4 Rates of dis-budding of older animals

Removal of horns of all bovines has been recommended as a desirable animal husbandry requirement for years. The survey of Vets undertaken for this Review asked whether the *"numbers of large animals presented to your practice for de-horning since the introduction of the Suckler scheme had showed a large decrease or increase (on a scale if 1-5)"*. The results were notable with 73% indicating that there had been a large decrease in the number.

7.2.5 Attitudes to Welfare

One of the main aims of the welfare measures of Suckler scheme was to bring about attitudinal change amongst farmers on the issue of husbandry and management of suckler calves. In this regard, it would be reasonable to measure the effectiveness of such behavioural change. There are two sources of this information; namely the VFM survey of scheme recipients and the meeting between the VFM Steering Committee and the four Farm Organisations.

Farm Survey:

The survey asked a number of questions on changes in practices in animal behaviour which may be used as an indicator of changed attitudes to welfare. The first of these asked:

On a scale of 1-5 with one being not very important and 5 being very important, how important do you believe the welfare elements (dis-budding, creep feeding etc.) of the scheme are?

Not Very Important				Very Important
1	2	3	4	5
7%	6%	10%	29%	48%

This answer could be considered the first stage in improving attitudes to animal welfare. The second aspect would be the effectiveness of these measures and here the scheme recipients were asked:

On a scale of 1-5 with 1 being not very important and 5 being very important please mark how important the scheme has been in:
i) Improved animal welfare standards for weanlings

Not very Important				Very Important
1	2	3	4	5
6%	2%	12%	26%	54%

This question indicates that large majority recognise the importance of the welfare measures which is also reflected in subsequent questions on the impact of welfare measures on competitiveness (See Chapt. 7.4.1 below) and prices received for weanlings. The final stage in whether the welfare aspects of the scheme have brought about a permanent change in behavior and in this regard the scheme participants were asked which of the main five welfare practices would they continue with in the absence of the scheme:

In the absence of the scheme, would you continue with:	Creep feeding the calves	74%
	Dis-budding at <3 weeks	56%
	Minimum calving age for heifers at >22 months	78%
	Avoid castration of calves at weaning time	76%
	Advanced weaning prior to sale	56%

The answers above suggest that a large majority would continue with the welfare aspects irrespective of whether or not the scheme continues in the future. These views were also supported by the Farm Organisations in their meeting with the VFM Steering Group (see Chapt. 4).

It also needs to be assessed whether the welfare measures have brought about wider appreciation of the benefit of improved animal welfare by farmers outside the scheme. This broader increase in standards can be a regular feature of schemes where a behavioural change is promoted to bring about a public good. This is clearly a more difficult aspect to measure but there are some indicators that can be used:

- The market benefits of participation in the welfare scheme are evident to all farmers through higher prices paid for Suckler scheme weanlings at the mart. The evidence for higher prices comes from the distinction in the mart displays for weanlings under the scheme This suggests that non-scheme farmers will inevitably be forced to increase their husbandry standards to a level close to the scheme in order to be competitive and take advantage of higher prices.
- In the case of the disbudding measures for example, the text in Para 7.2.4 above indicated that 73% of Vets showed that there had been a large decrease in the number of older animals presented for dis-budding and it would be reasonable to assume that this applies to non-scheme animals as well as scheme animals.
- In addition, the incentivisation of earlier disbudding has had a multiplier effect throughout the beef sector. It has become unacceptable for non-Suckler scheme herds to remove horns at a later age, with all sections of the industry more conscious of the damaging effects this practice has on individual animal welfare, loss of thrive and farmer safety.

Conclusions On Effectiveness of Welfare Measures:

While the effectiveness of the welfare measures can be difficult to measure, there are indicators which show that the Suckler Scheme has had a positive effect on bringing about a lasting change to welfare practices. It is not possible to be definitive while the scheme is still in operation as participating farmers are being paid to follow good practices but there are signs that some of the welfare practices would continue in the absence of the Scheme.

7.3 Breeding:

The Steering Group agreed that the following would be used as the measure of the effectiveness of the breeding requirements of the Scheme in order to assess whether potential genetic improvement in the national beef breeding programme had been enhanced:

- How has the increase in data led to improved quantity and quality of genetic evaluations?
- Evidence of improved sire selection by farmers
- Evidence of influence of sire choice.

7.3.1 *How has the increase in data led to improved quantity and quality of genetic evaluations?*

Genetic improvement is based on three key requirements (i) data on which to identify the best animals, (ii) accurate economic indexes on which to rank animals for breeding and (iii) a breeding program that ensures the best animals are then used on a widespread basis (Cromie 2011a). However, genetic gain is a slow process. Timelines provided by ICBF to VFM steering committee for genetic progress are as follows: data recording in year 1, evaluations in year 2 onwards and genetic gain/breeding scheme in year 5 onwards. This means that as the SWS was only launched in January 2008, in terms of carcass traits, the first animals (progeny) from the scheme were only slaughtered in 2010 (Wickham, 2010), whereas the impact on milk and fertility traits (index) will only take effect *from* 2010 onwards, when 2008 born females begin to calve (Evans et al., 2009).

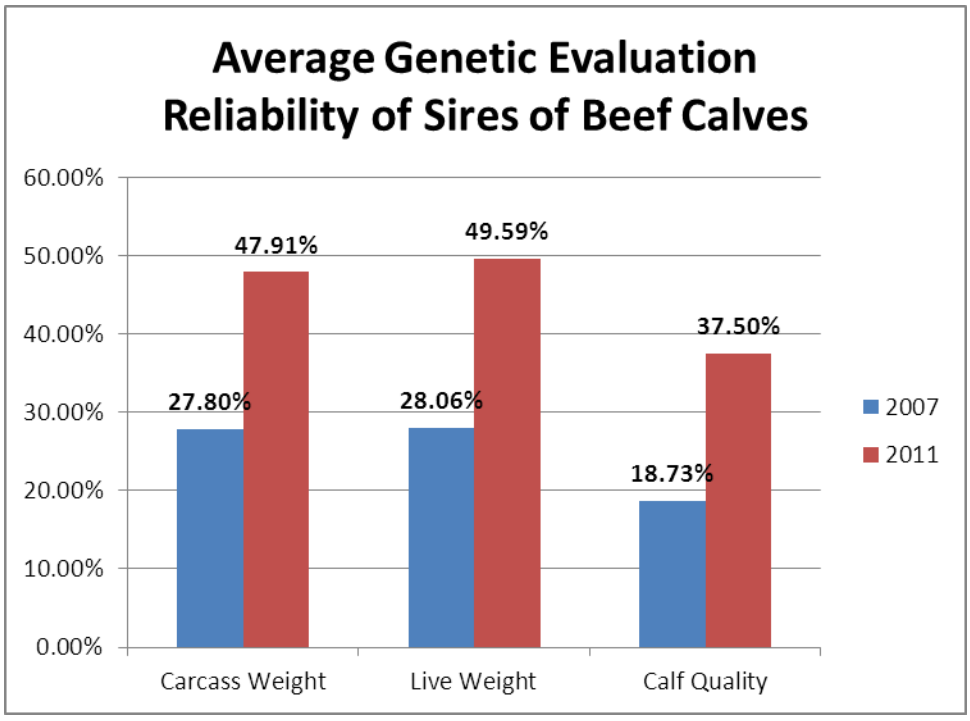
With dairy cow breeding in Ireland, the EBI was introduced in 2001, but widespread user acceptance/uptake did not occur until 2004, and a noticeable impact on genetic gain was not evident until ~2006 onwards (Cromie and Wickham, 2010).

There is evidence that genetic progress is now occurring in the beef herd. *"The SBV index for beef cattle was first introduced in 2006 with only limited uptake, but now that has changed as evidenced from the SBV of commercial females increasing at a similar rate as happened with dairy cows"* (Cromie and Wickham, 2010).

The additional data generated from the Suckler Scheme, has helped identify a deterioration in maternal traits nationally – genetic trends. "*It wasn't until the establishment of the SWS in 2008 that farmers and the wider industry could get a handle on these important cost-of-production traits* (Cromie, 2011a)". This means that indexes can be modified to halt and eventually reverse the decline, before it becomes an even greater problem.

Having a significantly increased number of herds on the ICBF database has allowed the loading of historical weight data to the database. These included live-weights and slaughter weights which had been in storage but could not be used as ancestry data was lacking on the individual animals. The extra data has been of considerable value in improving the accuracy and relevance of beef genetic evaluations. The following graph shows the increase in reliability in genetic evaluations achieved as a result of the data captured through the suckler scheme.

Figure 7.3 Average Genetic Evaluation Reliability of Sires of Beef Calves

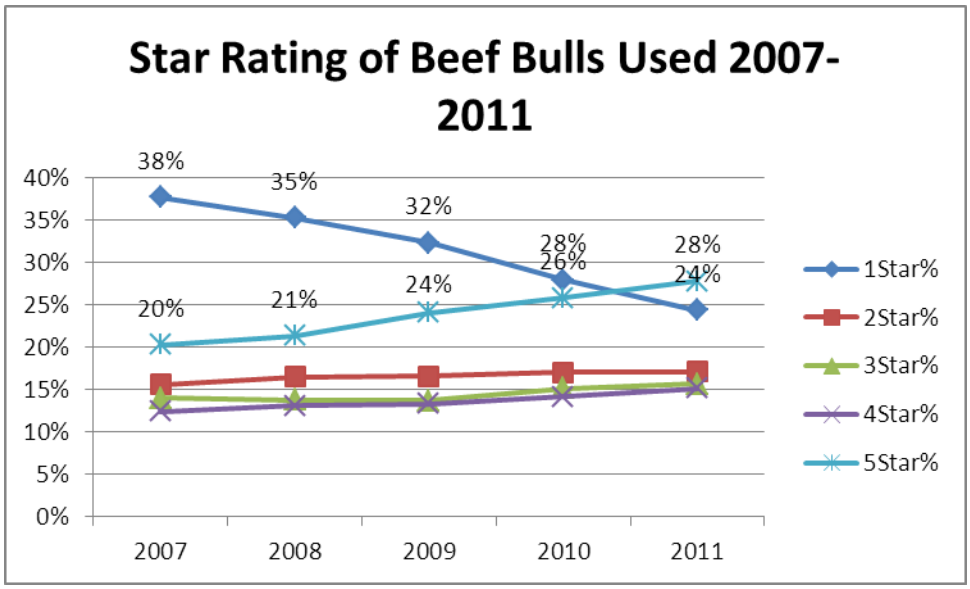


7.3.2 Evidence of influence of sire choice.

At the request of the Steering Group, the ICBF analysed calves born to beef sires from 2007-2011 in order to assess whether there had been any change in the use of higher rated bulls.

Figure 7.4 below highlights the % of calves whose sires were in the various Eurostar categories, by year of birth. It relates to calves born where the sire was a 'beef' sire, and where the sire identification was recorded as part of calf registration. From 2008 onwards, it would cover the majority of beef calves, due to the introduction of the suckler scheme.

Figure 7.4 Eurostar rating of Beef Bulls used 2007-2011



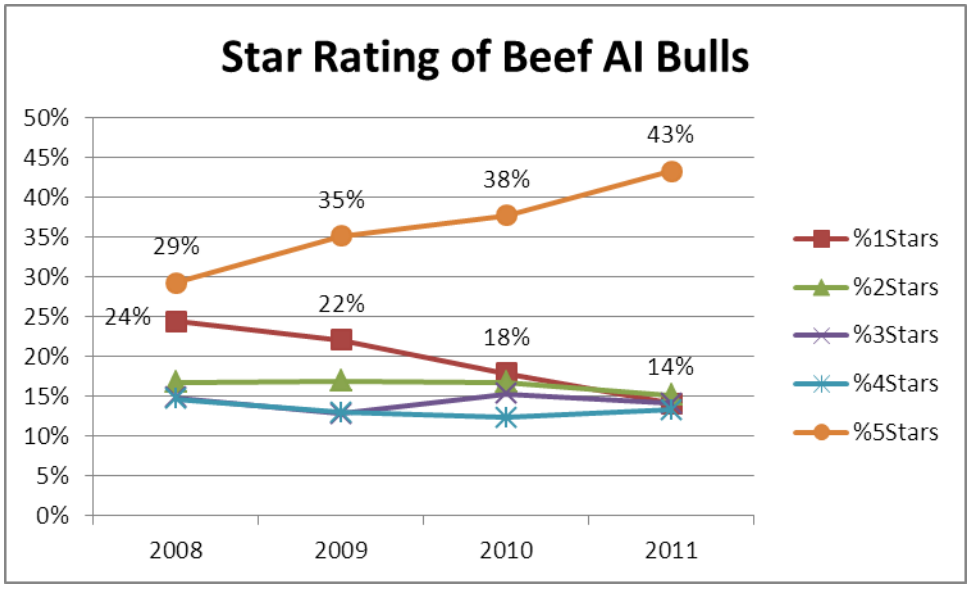
Year	1Star%	2Star%	3Star%	4Star%	5Star%
2007	38%	16%	14%	12%	20%
2008	35%	17%	14%	13%	21%
2009	32%	17%	14%	13%	24%
2010	28%	17%	15%	14%	26%
2011	24%	17%	16%	15%	28%

These figures show a marked decline in the level of 1 star bulls being used over the five year period with most of the difference taken-up by the 5 star category and an even spread amongst the other three categories.

Within the figures for all beef bulls is a sub-category outlined in Chart 7.4 below on the rating of beef AI Bulls. This category represents approximately 20% of all beef progeny births. It amplifies the trends outlined in Chart 7.3 above, indicating that farmer choice is more likely to move towards higher rated bulls where the farmer is not constrained by the fact

that there is already a functioning stock bull on farm i.e. the farmer can make a fresh decision each year.

Figure 7.5 Eurostar rating of AI Bulls 2008-2011



Year	%1Stars	%2Stars	%3Stars	%4Stars	%5Stars
2008	24%	17%	15%	15%	29%
2009	22%	17%	13%	13%	35%
2010	18%	17%	15%	12%	38%
2011	14%	15%	14%	13%	43%

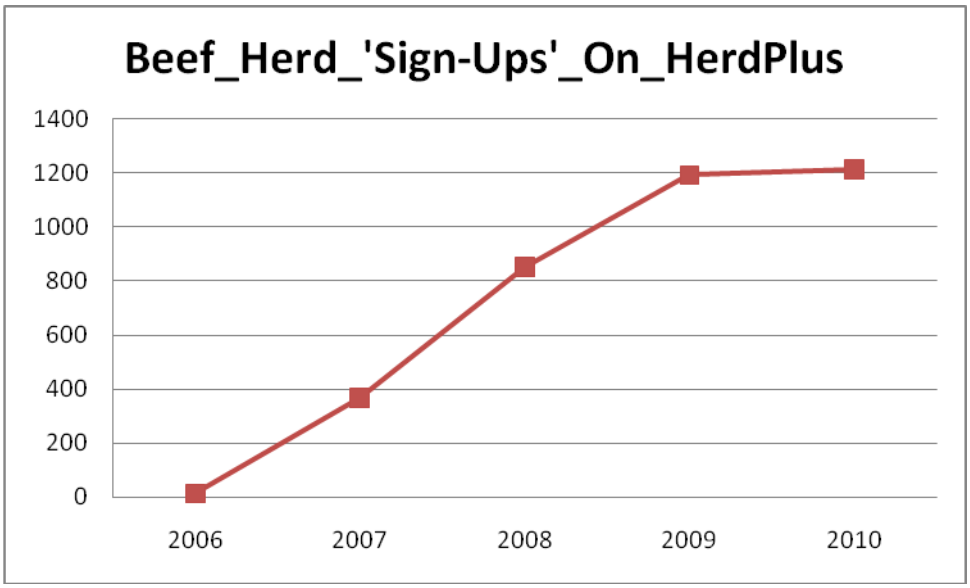
7.3.3 Numbers utilising Herdplus

The *HerdPlus* is a breeding information service provided by the ICBF to farmers which contains a range of farm management aids including, €uro-Star reports, breeding charts, and fertility reports. ICBF charge for the service[48] and its level of uptake by the farmers can be used as an indicator of their engagement with the cattle breeding database and the benefits that flow from better recording. The key benefit to *HerdPlus* users is the information available on the cows. Many of the herds who joined the Suckler Scheme did not previously have any ancestry data on their cows, and thus the real value will begin to accrue as

[48] Current cost is €60 (inc VAT) per herd per year for herds receiving breeding information products

replacement cows are brought into the herd, where the sire of the cow is now known due to Suckler Scheme recording. *Herdplus* is generally used by more commercial farmers who use breeding information on their herd as a key way of driving efficiencies, and making more rapid genetic gain.

Figure 7.6 Table of Beef Sire Selection 2007-2011



Conclusions on Breeding:

- It is agreed that the uptake of the available information arising from the collection of the breeding data is a long-term goal which was not possible to fully measure within the time-frame of this VFM.
- As outlined in Chapter 6, the collection of breeding data has vastly improved as a direct result of the Suckler scheme. However this is regarded as stage one in improving the breeding culture in Irish beef herd and should be followed by a dissemination of the data gathered to farmers and then by uptake and implementation by farmers of the information gathered.
- Notwithstanding the early nature of the analysis, some positive trends are emerging which indicate beef farmers utilising higher rated bulls based on the Eurostar classification. This is particularly true for AI breeding where farmers have more choice from year to year.
- Based on experiences with the dairy EBI, a full analysis of the benefit of the breeding measures will only be possible a number of years after the end of the Scheme.

Recommendations on Breeding

- The ICBF has collected and continues to collect a huge volume of data as a direct result of the Suckler scheme but its dissemination to farmers needs to be improved if the potential benefit is to be realised.
- There is a greater role for Teagasc through its farm advisers to disseminate the information provided by the ICBF and some thought needs to be given as to how this should be improved.
- Based on the policy options Chapter and in view of economic difficulties for the Exchequer, some thought should be given to extending the current obligatory reporting requirements for calves to include additional details on sire, calving, docility etc. (The calf registration form used in Denmark is provided at Appendix G as an example).
- The levels of uptake of the ICBF data need to be monitored on annual basis to examine whether any improvement in the level of uptake is noticeable.

7.4 Competitiveness of Irish Beef Sector

The economic overview of the Irish beef sector is outlined in Chapter 2. In summary, the beef industry is one of Ireland's most important indigenous industries and comprises a vital part of the agri-food sector. In Irish agriculture[49], 93,000 farms have a cattle enterprise on their farm, making cattle production by far the most prevalent agricultural enterprise on Irish farms. Ireland exports over 90% of its beef production. It is the largest net exporter of beef in the northern hemisphere, and the 4th largest beef exporter in the world. The value of beef and cattle output in 2010 for the Republic of Ireland was €1.7 billion, representing 38% of total agricultural output, and was the largest single agricultural sector. The profile of Irish beef exports has changed greatly over the past decade. As recently as 2000, more than 50% of Ireland's annual beef exports were traded on volatile international markets. However, in the last ten years, Irish beef exporters have been almost exclusively focusing on the higher value consumer markets of the UK and Continental Europe, to which some 98% is now exported.

[49] The two main sources for this Chapter are:

- Teagasc : *Economic Prospects for Agriculture 2011*
- DAFM*: Agricultural Review and Outlook 2011*

7.4.1 Significance of the Suckler Herd in Beef Marketing

The Irish beef industry endeavours to achieve the best possible returns by targeting higher value market channels for a greater proportion of our output. High quality animals from the suckler herd are especially important in this regard, because of their superior carcass classification particularly in terms of conformation and the resulting yield of saleable meat. These higher yielding carcasses are more valuable from a processor's perspective, since they produce a higher proportion of high value cuts and consequently a lesser quantity of fat and bone. This benefit encouraged the meat industry to introduce the Quality-based Payment System (QPS) in late 2009, which rewards producers of animals of better conformation and appropriate fat cover.

In addition to the yield benefit, the superior quality animals coming from the suckler herd also result in cuts which tend to better meet the requirements of discerning customers across several Continental EU markets. For example, progeny from the dairy herd would not meet the desired characteristics of the highest-paying customers in Italy, Belgium and the Netherlands. Over recent years, an increasing proportion of our exports have been destined for these Continental markets, as opposed to UK. This improved differentiation of markets has reduced the industry's reliance on the UK, and this has been of strategic benefit. To-date this year, Irish producer prices have risen by more than 16% in comparison with 2010.

Similarly, there is a strong demand for high quality weanlings from the suckler herd: that is animals aged between 6 and 12 months with very good conformation and growth potential. Suckler farmers readily responded to the premium prices being paid by exporters for 'export quality' weanlings. At the same time, the beef industry inadvertently benefitted from this activity, since it helped maintain the size and quality of the national suckler herd.

Issues regarding the health of Irish weanlings resulted in significant losses during 2006 and 2007, after which a large percentage of Italian and Spanish buyers determined to cease purchasing from Ireland. It was not until late 2008 that the health benefits of the Suckler Welfare Scheme became most apparent as that was when weanlings came onto the market which had been reared in accordance with the Scheme and farmers had attended the training courses run by Teagasc. A significant improvement was reported in the health of weanlings

being exported, with animals now more accustomed to consuming concentrates. There was a significant reduction in stress-related respiratory illnesses reported by purchasers in 2008. These illnesses were previously a major problem experienced by export customers and domestic finishers.

As a result, there was a big recovery in weanling exports during 2009, followed by a further increase in 2010. Irish live exports to Italy increased by 25% in 2010, reaching almost 71,000 head, in spite of total imports to the market falling by almost 5%. Irish exports to Spain also rose by 25% to 61,000 head.

The prices being achieved for Irish weanlings abroad is now on par with the highest in the market. This would not have been achievable but for the improvements in quality, performance and reputation. It is worth noting that to-date in 2011, weanling exports have been some 25% lower than the same period in 2010. The reason for this is principally one of a decline in our price competitiveness relative to the European marketplace. A higher proportion of animals are now being purchased by domestic buyers but in the medium term the live export of high quality suckler weanlings is expected to remain a feature of the Irish livestock sector.

7.4.2 Bord Bia Survey

In order to assess the impact which the Suckler scheme may be having on the competiveness of the Irish beef sector, Bord Bia undertook a survey, on behalf of the Steering Group, of exporters and international buyers. This survey was primarily about seeking the views of the exporters and buyers on the impacts of the Suckler scheme on the quality of animals bought since 2008. The surveys were targeted at five major live exporters surveyed who collectively account for >85% of weanling / store exports to continental EU as well as three exporters representing significant buyers of Irish weanlings in Italy and Spain. The exporters were asked what effect, if any, the introduction of the Suckler Welfare Scheme has had on Irish weanlings.

The main findings can be summarised as:

- All exporters surveyed agreed that SWS weanlings are more valuable to their business and estimated that on average SWS weanlings were worth an additional €67 to their business than prior to the scheme.

- All respondents were complimentary about the improvement in health in recent years. All reported significant losses in 2006, 2007 & 2008, much of which was attributable to stress-related respiratory illness. Mortality is much lower now. Cattle are much more accustomed to concentrates and therefore faster to acclimatise to feeding programme as a result of the graduated weaning procedures under the Scheme.

- The price of Irish cattle is now on par with top competitor: previously this would have been unsustainable. There is also additional value to domestic buyers as Irish buyers surveyed strongly believed that Suckler scheme weanlings are more valuable to their business.

- Finishers estimated that on average SWS weanlings were worth an additional €52 per head to their business than prior to the scheme. Main advantages mentioned included reduced stress, improved health and ease of management.

7.4.3 Welfare in Beef Production a Consumer and Trade Issue:

Traditionally welfare concerns regarding Irish beef production have been centered around the UK market and the issue of live exports / transport. However in recent years the focus has widened and welfare questions have come from a number of markets including UK, Netherlands, Sweden, Germany and France. In the Netherlands, the main issues raised relate to castration of bulls and use of concrete slats in housing. The retail sector now demand that Ireland complies with the Beter Leven Star Standard as set out by the Dutch SPCA. They are looking for castration to be carried out under 2 months of age and with the use of anesthetic and anti-inflammatory medicines.

The issues of housing and castration have also been raised by customers in recent times in Germany and the UK. In France the main issue centers around Halal slaughter, which is also an issue for UK retail customers. Halal slaughter and production of beef from the Belgian Blue breed (due to high incidence of caesarian sections) are the main issues in Sweden. On the continent questions regarding the practices for disbudding cattle have also been raised.

In all of the above cases Bord Bia make a strong point of emphasising the welfare benefits accruing from the suckler herd, as evidenced in the Animal Welfare Index and promoted in the implementation of the Suckler Cow Welfare Scheme.

Conclusions on Competitiveness:

- There were significant problems with live export markets prior to the introduction of the Scheme but the Scheme has brought about reputational enhancement particularly on suckler weanlings as a result of the improved welfare measures. This has helped increase the level of live exports in 2009 and 2010 to record levels which has increased the market competition for beef animals in the country.
- Animal welfare is a now key element of choice by buyers and consumers in Ireland's key export markets and will continue to influence the competitiveness of the Irish beef sector.

Chapter 8: Policy Options

8.1 Introduction

As the scheme is due to expire in 2012, the Group examined a number of policy options to inform future decision-making. The Group's recommendations on each of these options can be found below.

8.2 Policy Option 1: Business as Usual

Option 1: Business as Usual	
What does this option mean? This means a continuation of the scheme at the same premium level of €40 with the same Terms and Conditions. This could be applied to both 2012 and future years.	
Cost Implications? Any extension of the scheme, in its current format beyond 2012 requires approx. €25-€30m of exchequer money per annum (based on current grant figures and scheme administration costs).	
Pros	**Cons**
The successful elements of the Suckler scheme e.g. improved welfare, data collection would be maintained.	The exchequer would continue to pay for changes in practices which are now well established. The original scheme was designed to bring about behavioural change in farmers in the areas of welfare and data collection. The scheme was established with a five-year lifespan as this is considered a reasonable time-frame designed to bring about behavioural change. Some of the welfare elements of the scheme are now widely accepted in practice and have a proven market value. The evidence of the Farm Orgs and the Farmers surveys is that a large majority of farmers would continue with the welfare measures, (with the possible exception of the graduated weaning), even in the absence of the scheme.
The reputational enhancement brought to the Irish beef sector and the consequential gains in competitiveness would be maintained.	A majority of respondents to the farmer's survey are receiving better prices for calves under the Scheme. When asked to clarify how much this additional payment had been on average per head, 32% were receiving <€40 while 68% received greater than €40. Suckler weanlings in 2011 are worth €120 more than in 2010. The figure of €40 is equivalent to the current premium level and it

	could be argued that the market response to the Suckler scheme is now greater than the premium funded by the Exchequer for a majority of scheme participants.
Those scheme measures not yet embedded would be continued with.	Would require approximately €25-€30m of exchequer funding per annum
Conclusion: The Steering Group concluded that this is not the preferred option.	

8.3 Policy Option 2: Cessation of the Scheme

Option 2: Cessation of the Scheme	
What does this option mean? The scheme is dis-continued	
Cost Implications? Non-continuation of the scheme beyond 2012	
Pros:	**Cons**
Saves €33m in exchequer funding per annum (€30m in grants and €2-3m in administration costs)	May halt the apparent stabilisation in suckler numbers seen in 2011 as some farmers may leave the sector.
A majority of respondents to the farmer's survey are receiving better prices for calves under the Scheme. When asked to clarify how much this additional payment had been on average per head, 32% were receiving <€40 while 68% received greater than €40. The figure of €40 is equivalent to the current premium level and it could be argued that the market response to the Suckler scheme is now greater than the premium funded by the Exchequer for a majority of scheme participants.	May damage the ICBF's data collection programme and their consequent efforts to deliver significant improvement in the area of genomics unless an alternative collection model is implemented. One solution could be an extension of the current obligatory reporting requirements for calf registration to include additional information such as sire details, docility etc.
As a result of this premium for suckler scheme calves, a majority of farmers responding to the survey, as well as the farm organisations, indicated that farmers would very likely continue with some of the same welfare practices.	The reputational enhancement of Irish beef achieved as a result of the Scheme could be lost if farmers revert to old husbandry practices. The marketing benefit afforded by the existence of the Scheme could be lost if it were to be discontinued.
Conclusion: The Steering Group concluded that this is not the preferred option.	

8.4 Policy Option 3: New Range of Measures

What does this option mean: The Group believes that the Suckler Scheme has succeeded in advancing and improving practices on farms that have Suckler Cows. The position at the end of 2012 will be much different to that which prevailed in 2007 prior to the introduction of the scheme. For that reason a different type of response is now required. As stated above there is some concern that some of the gains made under the scheme could be lost and measures are needed to consolidate the improvements made. Similarly there are practices which are funded under the current Scheme which no longer require public funding. There are different ways of consolidating the gains and a combination of measures from the list below is suggested. The range of appropriate measures should:

- Consolidate the gains in welfare, breeding and competitiveness from the existing scheme and build on these to continue to deliver on these positive aspects;
- Ensure that any funding is well targeted and is funding only those measures which are most appropriate and cannot be better achieved through other means;
- Simplify the current Scheme design and administration which is overly complex;
- Continue some of the welfare measures through statutory implementation to reflect that they are now in common practice as a result of behavioural change as a result of the Scheme;
- Seek to collect some of the breeding data on a statutory basis (Calf Registration form used in Denmark is at Appendix H as an example).

Some of the features of a new Scheme could include:

- Movement of some of the welfare measures to a statutory basis e.g. disbudding, castration
- Extending the mandatory data to be gathered under the calf registration process to include sire, calf quality etc. (using form used in Denmark)
- Introduction of a Suckler Cow Quality Assurance Scheme
- Mandatory participation in a Beef discussion group
- Funding options should include an examination of potential for a coupled aid scheme using EU funding as permitted under relevant CAP Legislation

Conclusion: The Steering Group recognised that it cannot prescribe on the exact design of future measures and that this best done by involving other bodies such as Animal Health Ireland and the ICBF. Consequently it is recommended that if the current Scheme is to be continued in 2012 that this provides a window for discussion on the possibility new measures.

Chapter 9: Performance Indicators

9.1 What are Performance Indicators?

This Chapter considers the performance indicators in place for the Suckler scheme and makes recommendations in regard to the possible use of additional indicators which could be used to ensure improved monitoring of the performance of the Scheme. Performance Indicators (PIs) are developed to aid programme management and review by setting targets and standards against which performance can be benchmarked. *Performance Indicators are a means to an end. They are a key component of the reporting structures to meet governance accountability and management requirements* (Department of Finance, 2002).

The Department of Finance[50] set out nine key characteristics of good performance indicators:

1. *Appropriateness* - the user must be able to associate the information to the activity, output or outcome being reported.
2. *Accuracy:* data should be as free of errors as possible
3. *Comprehensiveness* – all facets of performance must be captured by the data
4. *Consistency* – There should be internal consistency so that where indicators are grouped, they should not deliver mixed messages on performance
5. *Manageability* – The collection of data should be cost effective and integrated within reporting structures. Results should be delivered in an understandable format and management should play an active role in ensuring data quality.
6. *Relevance* – The information provided by the indicators should be what the user actually wants
7. *Timely* – The most recent available data should be used
8. *Verifiable* – indicators should be accurate and objective and should meet the standards of an independent examination
9. *Validity* – they should cover actual performance.

9.2 Current Performance Indicators

The indicators used to monitor the performance of the scheme to date can best be divided into:

[50] Management Information Framework – Performance Indicators: a Users' Guide

Table 9.1 Current Performance Indicators

Issue	Current Performance Indicator
Breeding	• Has the scheme increased the quantity of animal breeding data? Increase in genetic database/Quantity of additional data compared to pre-2008 • Specific information on data received e.g. sire, calving ease docility etc. • Numbers utilising ICBF "Animal Events Recording" • Has potential genetic improvement in national beef breeding programme been enhanced? • Has the knowledge of farmers on the genetic benefits of the scheme improved? • Increase in reliability of breeding values, particularly maternal breeding values. • Quantify improvement in reliability of EBVs & of genetic gain in National beef herd - expressed in €. • Evidence of improved sire selection by farmers • Sales of *Herd Plus.* ICBF website hits. • Changes to breeding practices using higher genetic merit on individual farms (sire and dam).
Welfare	• Rates of weanling (5-10 months) deaths. • Rates of farm expenditure on veterinary services to treat weanlings on e.g. respiratory illness. • Price paid for scheme weanlings vs. non-scheme weanlings. • Rates of dis-budding of older animals • Rates of illness amongst weanlings • Feedback from exporters on quality of animals sold for export • Evidence of consumer demand for product sourced from markets with high level of welfare •
Competitiveness	• Price paid for Weanlings • Value of Irish beef Industry • Farm Incomes • International markets

9.3 Future Performance Indicators

In order to continue to assess the effectiveness of the scheme, the following performance indicators should continue to be measured and be published:

Table 9.2 Future Performance Indicators

Issue	Performance Indicator	Who should measure?
Welfare	Rates of weanling (5-10 months) deaths.	DAFM
	Rates of dis-budding of older animals	DAFM
	Rates of illness amongst weanlings	DAFM
	Age of beef dams a first calving each year	DAFM
Breeding	Eurostar rating of beef sires used	ICBF/DAFM
	Star rating of beef AI bulls	ICBF/DAFM
	Farmer input to ICBF Data collection	ICBF/DAFM
	Use of Herdplus	ICBF/DAFM
Competiveness	International Attitudes to Irish beef product	Bord Bia
	Monitor animal welfare as a consumer issue in relevant markets	Bord Bia
	Feedback from exporters on quality of animals sold for export	Bord Bia
	Beef weanling prices	DAFM
	Price paid for scheme weanlings vs. non-scheme weanlings	DAFM

Chapter 10: Summary of Conclusions and Recommendations

10.1 Conclusion:

In summary, the Steering Group concluded that:

- The Scheme has largely met its original objectives in terms of bringing about improvements in animal welfare, collection of breeding data and ultimately achieving improved competitiveness within the Irish beef sector. The challenge now is to consolidate the gains achieved over the last four years while ensuring that public funding is used most efficiently and levels of expenditure reflect the pressure on the public finances in the coming years.

- The initial premium rate was attractive enough to encourage a very high level of participation in the scheme, such that it was over-subscribed. The model eventually employed involving a higher premium in Year 1 followed by a reduced premium thereafter would have been an appropriate approach from the start as it reflects the set-up costs and initial changes to practices and record-keeping, which should subsequently then become established practice.

- The animal welfare measures have directly contributed to improved prices for weanlings and improved reputation for Irish beef and live exports in key markets. There has also been significant attitudinal and behavioural change by suckler farmers with regard to animal welfare and there are strong indications that they would continue with most of the measures even in the absence of a scheme;

- Significant improvements have been achieved in the collection and processing of the breeding data submitted under the Scheme. This data is of particular value to ICBF in improving genetic evaluations and in facilitating the use of genomic selection in beef evaluations. The use of this data by farmers in terms of influencing their selections of sires etc. is a more long-term issue whose effectiveness can only be fully measured over a longer time period. However the early trends are positive in terms of a move towards selection of higher rated bulls;

- Largely as a result of the complexity of the scheme design, the costs of its administration are disproportionate when compared to the scheme outputs as well as when compared to similar DAFM schemes. The administration of the scheme is unnecessarily complex and needs to be re-examined if the scheme is to deliver better value for money;

- The Steering Group believes that the Suckler Scheme has succeeded in advancing and improving management and animal husbandary practices on suckler farms but it is appropriate to assess whether continued public funding is justified. The position at the end of 2012 will be very different to that which prevailed in 2007 prior to the introduction of the Scheme and for that reason a different policy response is now indicated. Suggested Policy Options are outlined in Chapter 8 and the Steering Group believes that neither continuation of the Scheme in its current format nor its complete cessation is desirable.

- Policy Option 3 recommends a new range of measures to ensure that the gains made under the Scheme can be consolidated and similarly to ensure that measures now well established under the current Scheme no longer receive public funding. There may also be scope for placing some of these measures on a statutory footing. The Steering Group does not prescribe the exact design of any future measures believing that that these may best be determined in consultation with other bodies such as Animal Health Ireland and the ICBF. Consequently the decision to continue the current Scheme for 2012 provides a timeframe that can be utilised for consideration of possible new measures.

10.2 Recommendations:

In addition to the Policy Options, the Steering Group made some specific recommendations in the areas of scheme administration and the breeding aspects of the Scheme.

Recommendations on scheme administration:

- That staff costs must be lowered in order to improve administrative efficiency. Therefore consideration should be given in these types of schemes to premia being paid on an annual per herd basis only. Similarly, error rates should continue to be applied on a per herd basis.

- DAFM and ICBF need to accelerate efforts to move scheme applications and participation online in view of the obvious cost savings. The issue of using Agents to submit data on behalf of the farmers who are not in a position to so themselves, as with the submission of data under AIM, looks to be the most viable solution.
- Single applications for multi-annual schemes should be avoided where possible as they significantly increase the administrative burden through issues such as change of herd ownership.

Recommendations on Breeding

- The ICBF has collected and continues to collect a huge volume of data as a direct result of the Suckler scheme but its dissemination to farmers needs to be improved if the potential benefit is to be realised.
- There is a greater role for Teagasc through its farm advisers to disseminate the information provided by the ICBF and some thought needs to be given as to how this should be improved.
- Based on the policy options Chapter and in view of economic difficulties for the Exchequer, some thought should be given to extending the current obligatory reporting requirements for calves to include additional details on sire, calving, docility etc. (The calf registration form used in Denmark is provided at Appendix G as an example).
- The levels of uptake of the ICBF data need to be monitored on annual basis to examine whether any improvement in the level of uptake is noticeable.

Appendix A: Survey of Veterinarians

Veterinary questionnaire to assess the effects of the Suckler Cow Welfare Scheme. (SCWS)

Please rate your answers 1-5 where on a scale of 1 to 5 where 5 is a large ***increase*** in numbers and 1 is a large ***decrease*** in numbers, how would you rate the following: -

1. The numbers of larger animals presented to your practice for de-horning since the introduction of the SCWS in 2007?

Large Decrease				Large Increase
1	2	3	4	5
67%	20%	13%	0%	0%

2. The numbers of larger males presented to your practice for castration since the introduction of the SCWS in 2007?

Large Decrease			Large Increase	
1	2	3	4	5
33%	53%	7%	7%	0%

3. Have the numbers of weanlings with respiratory conditions since the introduction of the SCWS in 2007 increase or decreased?

Large Decrease			Large Increase	
1	2	3	4	5
7%	80%	13%	0%	0%

4. Have the amounts of antibiotics dispensed to farmers to treat weanlings with respiratory conditions since the introduction of the SCWS in 2007 increase or decreased?

Large Decrease				Large Increase
1	2	3	4	5
0%	67%	33%	0%	0%

5. Have the numbers of young (below 22 months of age) heifers calving since the introduction of the SCWS in 2007 increase or decreased?

Large Decrease				Large Increase
1	2	3	4	5
20%	40%	33%	7%	0%

Appendix B: Survey of Scheme Participants

Section A: Respondent Profile

A1. What County is your farm located in?				
A2. What age are you?	<35	4%	35-50	36%
	51-65	37%	>65	23%
A3. Are you a full-time farmer?	Yes	62%	No	38%
A4. What is the size of your farm? (in hectares).	<20ha	27%	20-40ha	44%
	41-60ha	20%	>60ha	8%
A5. What is the current size of your suckler herd?	<15	42%	16-30	40%
	31-70	17%	>70	1%
A6. Are you engaged in other types of farming?	Yes	40%	No	60%
A7. If yes, are you involved in:	Sheep	66%		
	Dairy	4%		
	Other (Please specify)	30%		

Section B: Scheme Administration

B1. Are you satisfied with the way the scheme is being administered by the Department of Agriculture?

Please tick one option only with 1 being very dissatisfied and 5 being very satisfied

Very Dissatisfied				Very satisfied
1	2	3	4	5
10%	11%	37%	20%	22%

B2. How would you rate the training provided in terms of improving your knowledge of welfare, breeding and value of recording breeding data?
Please tick one option only with 1 being no improvement and 5 being a large improvement?

No improvement				Large improvement
1	2	3	4	5
12%	14%	35%	19%	20%

B3. How do you rate the premium of €40 per animal?

Too low	89%
Too high	0%
Sufficient	11%

B4. Does the premium cover the costs of participating in the scheme? Yes 37% No 63%

B5. Do you participate in the scheme online? Yes 19% No 81%

B6. If you do not participate online, is this because of:

i) Lack of computer skills	54%
ii) No access to the internet	19%
iii) The incentive to participate online is too low	18%

iv) Other reason 9%
(please specify)

Section C: Withdrawal from the scheme

Note: Please only complete this section if you have withdrawn from the scheme
If you are still participating in the scheme, please proceed directly to Section D

C1. When did you withdraw from the scheme?

2009 ☐

2010 ☐

2011 ☐

C2. What was your main reason for withdrawing from the scheme?
Please tick one only

i) Too much paper-work involved ☐

ii) The reduction in the premium ☐

iii) Did not see any benefit from the scheme ☐

iv) No longer retain suckler cows ☐

Section D: Breeding

D1. On a scale of 1-5 with one being not very important and 5 being very important, how important do you believe recording the sire of a calf at calf registration is?

Not Very Important 1	2	3	4	Very Important 5
10%	4%	13%	19%	55%

D2. Are you aware of the ICBF's *Eurostar* classification of bulls? Yes 68% No 32%

D3. Did you/will you use the ICBF *Eurostar* classification when you bought a bull/ will next buy a bull? Yes 52% No 48%

D4. Do you use *Herdplus* from the ICBF? Yes 20% No 80%

D5. Are you more likely to use AI for breeding purposes since the availability of new breeding information from the scheme?

More likely 38%

Less Likely 6%

No change 56%

D6. If you are not more likely to use AI for breeding purposes, is this because? *(please tick one only)*

i) The cost of AI 11%

ii) Have invested in own bull 55%

iii) Use of AI is too time-consuming 16%

iv) Unsatisfactory results from AI 14%

v) Other reason (please specify) 5%

D7. Would you continue to provide information on Yes 69% No 31%

the sire of a calf as part of the calf registration process, in the absence of the scheme?

Section E: Welfare

E1. On a scale of 1-5 with one being not very important and 5 being very important, how important do you believe the welfare elements (dis-budding, creep feeding etc.) of the scheme are?

Not Very Important				Very Important
1	2	3	4	5
7%	6%	10%	29%	48%

E2. Has participation in the Scheme meant that you have had to change your practices since its introduction?

Yes 54% No 46%

E3. Has there been any change to your spending on veterinary fees as a result of welfare measures under the scheme?

Lower spending	10%
Higer spending	16%
No change	73%

E4. In the absence of the scheme, would you continue with:

i) creep-feeding the calves	74%
ii) Dis-budding at <3 weeks	56%
iii) Minimum calving age for heifers of >22 months	78%
iv) Avoid castration of calves at weaning time	76%

v) Advanced weaning prior to sale	56%

Section F: Scheme Impacts

F2. On a scale of 1-5 with 1 being not very important and 5 being very important please mark how important the scheme has been in the following areas:

i) Improved animal welfare standards for weanlings

Not very Important				Very Important
1	2	3	4	5
6%	2%	12%	26%	54%

ii) Better recording of breeding data for producing *Eurostar* classification

Not very Important				Very Important
1	2	3	4	5
11%	3%	18%	25%	44%

iii) Changes in sire selection

Not very Important				Very Important
1	2	3	4	5
12%	8%	16%	26%	39%

iv) Increased use of *Eurostar* classification for bull selection

Not very Important				Very Important
1	2	3	4	5
13%	10%	21%	21%	36%

v) Improved incomes for beef farmers

Not very Important				Very Important
1	2	3	4	5
4%	6%	18%	14%	58%

vi) Improved competitiveness for Irish beef industry

Not very Important				Very Important
1	2	3	4	5
5%	4%	11%	14%	66%

F3. Are you receiving better prices for your calves participating under the scheme? (compared to non-scheme calves)

Yes 52% No 48%

F4. If you have received better prices, how much has this been on average per head?

<€40	32%
€40-€100	63%
>€101	5%

F5. Overall, has the scheme provided an incentive for you to continue in suckler farming?

Yes 74% No 26%

Appendix C: Meeting with Farm Organisations

At its April 2011 meeting, The Steering Group met with:

IFA	Kevin Kinsella, Michael Doran
ICMSA	John Enright, Kevin Connolly
ICSA	Eddie Punch, Dermot Kelleher**,**
Macra na Feirme	Derry Dillon, Liam Delaney

Appendix D: Survey of Buyers and Exporters

Suckler Welfare Scheme / Animal Welfare, Recording and Breeding Scheme (AWRBS)

Survey of Buyers of Suckler-bred Weanlings

Thank you for completing this questionnaire. Your response, which is completely anonymous, will be used to ensure that the scheme is appropriately targeted at the needs of the agriculture sector.

Section A: Respondent Profile

1. **What county is your farm / business located in?** ☐
2. **What counties do you buy most of your animals?** ☐
3. **Do you purchase weanlings for:**

   Finishing in Ireland ☐ Export ☐ Both ☐

4. **For how many years have you been operating this business?**

   ☐ years

5. **Details of Animals Purchased:**

Tick categories of animals purchased;		Average number/yr	Weight range
Bull Weanlings	☐	☐	☐
Heifer Weanlings	☐	☐	☐
Other: Steers	☐	☐	☐
Older Heifers	☐	☐	☐
Older bulls	☐	☐	☐
Calves	☐	☐	☐

<u>Section B</u>: Progress of Irish Weanlings since the Introduction of the Suckler Welfare Scheme (AWRBS)

Participants are asked to rate any change in the performance of the weanlings which they purchased in recent years, under a number of parameters, in comparison with historic results, prior to the introduction of the AWRBS (2008).

On a scale of 1 – 5, with 1 being very insignificant and 5 being very significant, please mark how significant the Suckler Welfare Scheme was in the following areas (in your opinion):

1. **Suitability at Purchase:** (Has the scheme resulted in a wider availability of weanlings which are suitable for your production system / market?)

Very INSIGNIFICANT				**Very SIGNIFICANT**
1	**2**	**3**	**4**	**5**

2. **Behaviour:** (Since the introduction of the scheme are animals less stressed after purchase? Do they acclimatise quicker to their new surroundings? Less bawling, fewer animals attempting to break out, easier to handle and draft?)

Very INSIGNIFICANT				**Very SIGNIFICANT**
1	**2**	**3**	**4**	**5**

3. **Health:** (Have you observed a reduction in the incidence and severity of stress related respiratory illnesses in weanlings since the introduction of the scheme?)

Very INSIGNIFICANT				**Very SIGNIFICANT**
1	**2**	**3**	**4**	**5**

4. **Nutrition:** (Were the weanlings already accustomed to consuming concentrates? As a result, did they adapt quicker to the feeding programme, with reduced digestive upsets?)

Very INSIGNIFICANT	**Very SIGNIFICANT**

1	2	3	4	5

5. **Performance:** (Have you noticed an improvement in liveweight gain or feed conversion efficiency? Would it be possible to quantify this - are animals reaching heavier carcase weights or are they finished in a shorter feeding period?)

Very INSIGNIFICANT				**Very SIGNIFICANT**
1	**2**	**3**	**4**	**5**

<u>Section C</u>: Additional Value to Industry

Participants are asked to consider any additional value that may have been attributable to the weanlings produced according to the measures of the Suckler Welfare Scheme,

Suckler Welfare Scheme Benefit: (Would you agree that weanlings produced under the scheme are more valuable to your business than prior to its introduction?)

Very INSIGNIFICANT				**Very SIGNIFICANT**
1	**2**	**3**	**4**	**5**

1. **Additional Value: What additional value would you place on the weanlings you purchased from producers participating in the Suckler Welfare Scheme, considering any performance and health benefits mentioned already?**

   Additional Value: € / head: | |

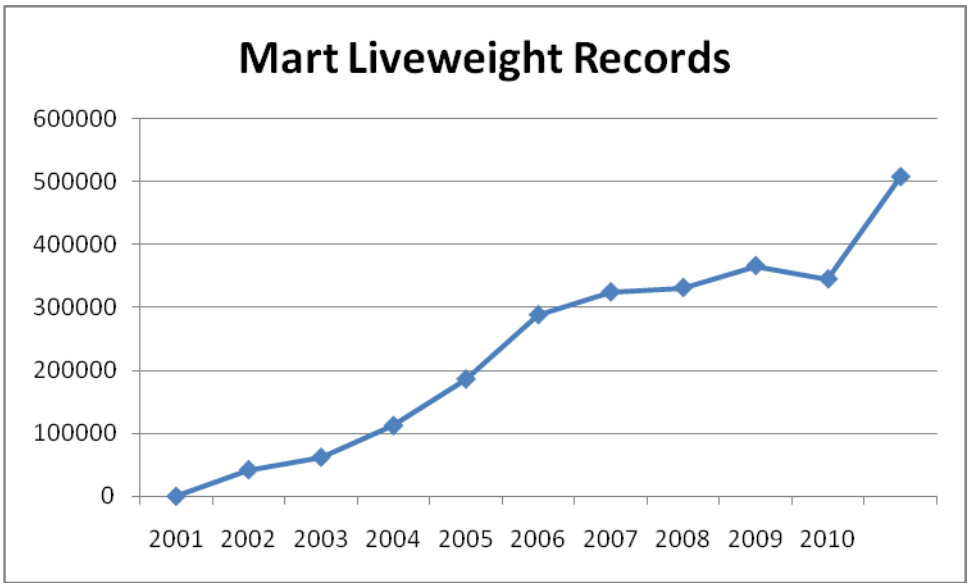
2. **In your opinion, if the Suckler Welfare Scheme was discontinued, would the majority of weanling producers continue to practice the management measures prescribed under the scheme** (meal feeding, proper weaning procedure, participation in animals events etc.), or would they revert to their 'old ways': selling weanlings 'straight off the cow' etc.?

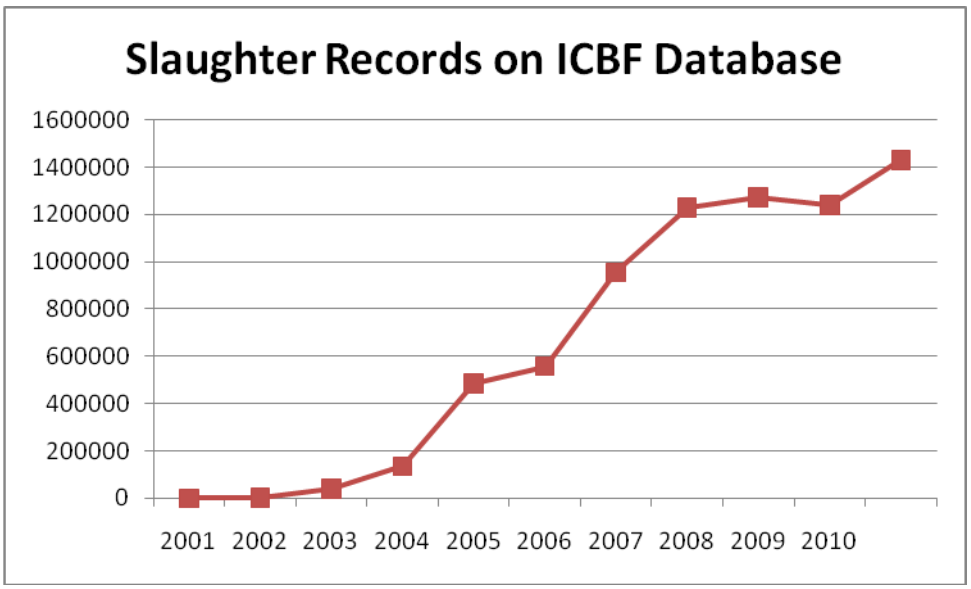
Revert to old ways				**Continue with measures**
1	**2**	**3**	**4**	**5**

If the Department of Agriculture, Fisheries and Food were considering making any amendments to the scheme, would you have any suggestions as to what these should be and why?

Appendix E: Additional Breeding Data:

Having a significantly increased number of herds on the ICBF database has allowed the loading historical weight data to the database (live-weights and slaughter weights which had been in storage but couldn't be used as we lacked ancestry data on the individual animals), which are very valuable in beef genetic evaluations.





Appendix F: DAFM allocation to ICBF in respect of Suckler Scheme

Date of invoice	Animal event books print & pack Suckler Books, envelopes etc	Data keying	Call centre	Software & tech support	An Post	Total	VAT	Total & VAT
23/11/2007	346,450.00			20,000.00	187,500.00	553,950.00	116,329.50	670,279.50
Total 2007	**346,450.00**	**0.00**	**0.00**	**20,000.00**	**187,500.00**	**553,950.00**	**116,329.50**	**670,279.50**
20/03/2008	44,981.00	3,295.00	15,015.00	25,300.00	45,000.00	133,591.00	28,054.11	161,645.11
28/05/2008	30,420.00	40,406.00	23,400.00	17,475.00	137,644.00	249,345.00	52,362.45	301,707.45
25/09/2008	28,463.00	124,453.00	52,681.00	34,000.00	37,651.00	277,248.00	58,222.08	335,470.08
31/12/2008	42,727.92	162,140.50	56,649.00	33,600.00		295,117.42	63,450.67	358,568.09
Total 2008	**146,591.92**	**330,294.50**	**147,745.00**	**110,375.00**	**220,295.00**	**955,301.42**	**202,089.31**	**1,157,390.73**
28/02/2009	82,712.00	32,310.00	27,983.00	16,400.00	48,252.00	207,657.00	44,646.26	252,303.26
30/06/2009		48,728.00	26,032.00	16,800.00		91,560.00	19,685.40	111,245.40
30/10/2009	33,504.96	94,796.16	69,431.04	38,640.00	16,523.00	252,895.16	50,820.01	303,715.17
Total 2009	**116,216.96**	**175,834.16**	**123,446.04**	**71,840.00**	**64,775.00**	**552,112.16**	**115,151.67**	**667,263.83**
03/02/2010	29,593.00	102,777.00	39,021.00	22,080.00	60,296.00	253,767.00	41,596.00	295,363.00
20/05/2010	27,649.92	54,946.56	51,783.36	30,912.00		165,291.84	34,711.29	200,003.13
29/07/2010	2,621.76	32,328.00	25,891.20	15,088.00	20,395.00	96,323.96	15,945.08	112,269.04
29/10/2010	24,100.00	46,867.00	39,336.00	23,920.00	25,397.00	159,620.00	28,186.83	187,806.83
01/12/2010	72,630.00	36,671.00	26,523.00	15,455.00	54,249.00	205,528.00	31,768.59	237,296.59
16/12 cred note	-6,880.00				-20,333.00	-27,213.00	-1,444.80	-28,657.80
31/12/2010	7,283.00	13,861.00	11,998.00	6,256.00	9,502.00	48,900.00	57,173.58	106,073.58
Total 2010	**156,997.68**	**287,450.56**	**194,552.56**	**113,711.00**	**149,506.00**	**902,217.80**	**207,936.57**	**1,110,154.37**

29/04/2011	47,548.44	87,952.47	53,282.57	30,176.00	37,082.40	256,041.88	45,981.37	302,023.25
25/08/2011	5,655.40	40,073.67	27,626.14	15,456.00	7,548.97	96,360.18	18,650.35	115,010.53
Total 2011	**53,203.84**	**128,026.14**	**80,908.71**	**45,632.00**	**44,631.37**	**352,402.06**	**64,631.72**	**417,033.78**

Totals	**819,460.40**	**921,605.36**	**546,652.31**	**361,558.00**	**666,707.37**	**3,315,983.44**	**706,138.77**	**4,022,122.21**

Appendix G: Calf Registration Form in Denmark

EARTAG NUMBER OF THE COW	DATE	SEX OF THE CALF				COURSE OF CALVING					EARTAG NUMBER OF THE CALF	THE CONDITION OF THE CALF (ONLY ONE X)									SIZE OF THE CALF				WEIGHT OF THE CALF	REMARKS
		1 BULL	2 HEIFER	8 UNKNOWN		1 EASY, WITHOUT HELP	2 EASY, WITH HELP	3 DIFFICULT, NO VETERINARIAN	4 DIFFICULT, VETERINARIAN	5 CAESARIAN OPERATION		1 ALIVE	2 ALIVE, BORN TOO EARLY	3 DEAD WITHIN THE FIRST 24 HOURS	4 DEAD AFTER THE FIRST 24 HOURS	5 STILL BORN	6 ABORTION	9 DESTRUCTED AS INFANT	0 IMPERFECT CALF		1 SMALL	2 BELOW MEAN	3 WELL BEYOND MEAN	4 BIG	KG	
FOR ANIMALS BORN IN AN OTHER HOLDING, **THE ENTIRE IDENTIFICATION NUMBER MUST BE STATED** (ALL DIGITS) FOR ANIMALS BORN IN THE HOLDING, **ONLY THE INDIVIDUAL NUMBER IS STATED** (LAST DIGITS)											FROM APPLIED EARTAG																IN THIS FIELD NAMES OF CALVES BORN AND DONOR-DAM FOR ET-CALVES MAY BE STATED

Information outlined by colour is required by law and is transferred to the CHR

NUMBER OF THE COW	DATE	SEX 1 2 8				COURSE OF CALVING 1 2 3 4 5					NUMBER OF THE CALF	CONDITION OF THE CALF (ONLY ONE X) 1 2 3 4 5 6 9 0									SIZE OF THE CALF 1 2 3 4				WEIGHT OF THE CALF	REMARKS

EARTAG NUMBER	DATE	DRYING UP/REPRODUCTION								MOVEMENTS/WEIGHING											TO/FROM CHR-NUMBER	
FOR ANIMALS BORN IN AN OTHER HOLDING, **THE ENTIRE IDENTIFICATION NUMBER MUST BE STATED** (ALL DIGITS) FOR ANIMALS BORN IN THE HOLDING, **ONLY THE INDIVIDUAL NUMBER IS STATED** (LAST DIGITS		5 DRYING-UP	4 MATING	10 PREGNANT	13 NOT PREGNANT	21 START OF MATING PERIOD	22 END OF MATING PERIOD	26 SHIFT OF STATE (STEER)	IDENTIFICATION NUMBER OR HERD BOOK NUMBER OF MATING BULL	1 ENTRY	7 DEPARTURE, SLAUGHTERING	9 DEPARTURE, DEAD	16 SALE, BREEDING STOCK	24 WEIGHING	50 STATIONING, OUT***	51 STATIONING, HOME***	WEIGHT, KG	PRICE, KR.	REASON FOR DEPARTURE/	REPRODUCTION – AND DISEASE CODE	AT ENTRY/DEPARTURE OF ANIMALS THE NUMBER OF THE HOLDING FROM/TO WHICH THE ANIMAL WAS DELIVERED (IN THE CASE OF DIRECT IMPORTATION/EXPORTATION THE NAME OF THE COUNTRY IS STATED) THIS SECTION CAN ALSO BE USED FOR REMARKS FOR OTHER EVENTS	TEXT CODE

Information outlined by colour is required by law and is transferred to the CHR.

IDENTIFICATION NUMBER OF THE ANIMAL	DATE	DRYING UP/REPRODUCTION								MOVEMENT/WEIGHT									CAUSE OF DEP. (CODE)	REPRO. DISEASE (CODE)	TO/FROM CHR-NUMBER (OR REMARKS)	
		5	4	10	13	21	22	26	BULL NUMBER	1	7	9	16	24	50	51	WEIGHT	PRICE				

☐ YES

HOLDING NO.:_____ HERD NO.:_____ YIELD CONTROL ☐ NO

Appendix H: Bibliography

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