Department of
Agriculture and
Rural Development
www.dardni.gov.uk

AN ROINN
Talmhaíochta agus
Forbartha Tuaithe

MÂNNYSTRIE O
Fairms an
Kintra Fordèrin

POLICY AND ECONOMICS DIVISION

Farm Business Data
2012

Paul Keatley

Foreword

The 2012 year will see the agricultural industry and individual farm businesses continue to face challenges created by rising input costs and volatile farm-gate prices. As always, the availability of a sound, robust framework for farm planning decisions is of paramount importance. This is the role that 'Farm Business Data' fulfils, providing a comprehensive and authoritative source of physical and financial information tailored to farm planning needs in Northern Ireland.

The handbook is divided into sections and presents budgets for all the enterprises commonly found in Northern Ireland. Within the section on Farm Support Schemes details on the operation of selected schemes such as the Single Farm Payment Scheme can be found. A range of useful information is also presented in the Miscellaneous section including a summary of nitrates and phosphorous regulations. The latter also includes details on taxation, fixed costs, machinery costs, hire charges, contractors' charges and conacre rents.

It is important to stress that the handbook is designed to facilitate farm planning exercises. As such, the data presented in the enterprise budgets are in 'normalised' gross margin format and are unsuitable for benchmarking or comparison purposes. Farm performance data are published in 'Northern Ireland Farm Performance Indicators 2010/11', available from Policy and Economics Division in DARD. Alternatively, it may be accessed on the DARD website at http://www.dardni.gov.uk/agricultural-statistics-farm-business-survey.htm

Uncertainties surrounding future prices mean that users of the data are again advised to make appropriate adjustments to enterprise data when those presented in the handbook become out of date or are felt to be inappropriate for long-term planning.

'Farm Business Data' has been prepared by Paul Keatley with assistance from many individuals inside and outside DARD. The author would like to thank all those who provided information for inclusion in this edition and all who made constructive suggestions for change. Further comments or enquiries about the publication should be addressed to:

Paul Keatley
Room 811A
Dundonald House
Upper Newtownards Rd
Ballymiscaw
BELFAST BT4 3SB
Tel. (028-) 90 524063
E-mail Paul.Keatley@dardni.gov.uk

Norman Fulton
Director of Policy and Economics
February 2012

USER NOTES

Arable crops
It should be noted that total variable costs **exclude** contract costs. In situations where a contractor will be used it should be remembered that this additional variable cost will have to be included. Contract rates are given on pages 101 to 103.

Grassland based enterprises
Grassland costs are split in each of the budgets into a grazing cost and a silage cost per head. In the dairy and dairy follower budgets the grazing costs have been calculated at a standard stocking rate of 2 cow equivalents per hectare. For other grazing livestock budgets a stocking rate of 1.8 cow equivalents is used. If these stocking rates are considered inappropriate for individual farm situations they can be adjusted by referring to page 18. The silage cost per tonne charged in all budgets includes a contractor cost for harvesting and buckraking 2.5 cuts into the silo. In situations where the farmer uses his own machinery or makes 2 or 3 cuts the silage cost can be adjusted by referring to page 19.

Taxation
The taxation section on pages 113 to 116 gives general information only. Users are reminded that tax is a complex subject and that professional advice should be obtained before any action is taken which might affect liability to taxation.

DEFINITION OF TERMS

1. **Enterprise output of a crop enterprise** is the total returns for the crop produced; it is the total value for crop sales plus the market value of any part of the crop used or in store on the farm.

2. **Enterprise output of a livestock enterprise** is the value of livestock sold plus the market value of livestock and livestock products transferred to another enterprise (transfers out), plus the market value of any production from the enterprise consumed on the farm less expenditure on livestock and less the market value of livestock transferred in from another enterprise (transfers in).

3. **Variable costs** are defined as those costs which can both be readily allocated to a specific enterprise and vary in proportion with the level of output. Examples of variable costs are fertilisers, sprays, seeds, concentrate feedstuffs, silage and grassland variable costs. Casual labour and contract charges which can be allocated to a specific enterprise are usually regarded as variable costs.

4. **Gross margin** of an enterprise is its **enterprise output** less its **variable costs**.

5. **Enterprise marginal capital** is the estimated amount of capital required to establish the enterprise to the point of first sale of output.

INTRODUCTION

This handbook contains both physical and financial information for farm enterprises in Northern Ireland. For each enterprise, details of output, variable costs and gross margin are presented. The information relates to the production year beginning January 2012 (unless otherwise stated) and is based on price information available at the time of preparation (January 2012). For this reason, adjustments may be necessary to budgeted data where prices have deviated significantly from forecast levels.

The sources of information used in the booklet include the Farm Business Survey, the Agri-food and Biosciences Institute and the College of Agriculture Food and Rural Enterprise (CAFRE). In most of the budgets, more than one level of performance is given. The "typical" level of performance represents that most likely to be achieved. The "low" and "high" levels of performance, where given, encompass the range of performances found in approximately 80% of farms in Northern Ireland. On some farms, the level of performance will be outside the range given for a given enterprise.

If it is considered that the data are not appropriate for a particular farm, a different performance level should be substituted. This may be necessary when a series of farm plans with different levels of performance are used to indicate the range of possible outcomes for a particular farming situation. However, the levels of performance imputed should be realistic as the use of over optimistic or pessimistic levels of performance in a budget can result in the wrong decision being taken. Thus, each farming situation should be assessed adequately so that achievable levels of performance are used in budgets. For situations where a farm enterprise is being expanded, a level of performance similar to that presently achieved should not always be assumed. The quality of the land and livestock may differ, as may the seasonality of production.

CAP REFORM FROM JANUARY 2005

CAP reforms under the Mid-Term Review (MTR) were agreed in June 2003. The central feature of the reforms is that direct payments to producers, in the form of arable area aid and livestock headage premia, have been '*decoupled'* from production and replaced by a Single Farm Payment (SFP), payable annually. The amount of aid available under the SFP is based on Payment Entitlements awarded to farmers who declared land on their 2005 SFP/IACS declaration. Under the model of distribution selected in Northern Ireland, these Entitlements have been calculated by combining a uniform area rate per eligible hectare of land declared for payment of SFP in 2005 with a Historic Reference Amount, where appropriate. The latter has been calculated on the basis of individual livestock and arable subsidy claims by each farm business during the three-year Reference Period (2000, 2001 and 2002). Once established in 2005, the number and value of Entitlements will not normally change.

As the Single farm Payment is decoupled from production, it does not form part of the Gross margin of any enterprise. As a consequence, **in this handbook, gross margin budgets for all enterprises have been presented without the Single Farm Payment.** Further details relating to the operation of the Single Farm Payment scheme are available on page 77.

Fixed Costs

In assessing the impact of a change in the farm plan on farm profit, it is necessary to deduct the expected total farm fixed costs from the total farm gross margin. The projected farm profit can then be compared with the likely profit from continuing with the existing activities. To show the likely return on additional capital, the budgeted additional net profit should be related to the additional capital required to implement the new plan. When borrowed funds are used to finance the change, the interest charge should be deducted from the additional net profit.

Changes in fixed costs which occur when there is a change in the mix or size of enterprises on a farm will differ considerably between farms as these costs are very dependent on the scale of change and the resources already present on the farm. Such costs by their nature do not change gradually unlike variable costs which vary roughly in proportion to changes in the size of an enterprise. When preparing budgets the fixed costs should be changed if alterations are planned in the area of land farmed, the employment of regular labour, investment in machinery and buildings or, if there are appreciable changes in the usage of other fixed cost items such as fuel.

Farm planning exercises may range from a small modification of the present farming system to a completely new business plan for the farm. The first of these alternatives will, in most circumstances, require considerably less new information on fixed costs than is needed when a new farm plan has to be prepared. In either situation it is more sensible and accurate to prepare a list of the fixed cost items and calculate their cost to the business rather than using fixed cost 'standards' as guidelines. The list should include hired regular labour, depreciation of fixed capital and machinery, machinery repairs, fuel and oil, interest and general overhead costs.

Capital Requirements

Another essential element in farm planning is the cash flow budget. Such a budget will indicate how changes in the farm plan will affect the timing and flow of funds through the business. This can be critical information particularly when outside funding is required or capital resources are limited.

When new plans or budgets incorporating changes are prepared, it is important to determine how much extra capital will be needed. The return on the extra capital may be of particular significance in deciding how best to employ additional resources. Return on existing capital is of less importance, especially as machinery and buildings may have been written-off or have a low salvage value. For this reason, only marginal operating capital requirements per hectare of crop or per head of livestock are given on pages

95 and 96. In a livestock enterprise, this includes the cost of the extra animal(s) and the variable costs required to finance the production cycle until sufficient incoming funds have been obtained to finance the next period. This figure indicates the minimum necessary operating capital required per extra head of livestock. For a large increase in herd size, the additional operating capital should include the proposed capital outlay on the additional buildings, machinery and funds to pay extra labour until the production cycle is self-financing. Each particular situation should be investigated to determine whether extra labour or other fixed costs should be taken into account.

As many cattle enterprises require a large amount of operating capital (often financed from outside sources) per head and per hectare, an interest charge per head is given below the calculated gross margin in each of the cattle budgets. This, in many instances, is a substantial cost and should not be overlooked when comparing enterprises. Interest charge is calculated by applying the interest rate to the outlay on the animal plus the average variable costs for the production period.

Grassland, forage and calf rearing variable costs are common to many of the cattle enterprises and these topics are covered in pages 18 to 23 and 32 as a basis for inclusion in subsequent cattle budgets.

Occasional reference is made to trade names and proprietary products. No endorsement of such products is intended nor is any criticism implied of similar products not mentioned.

SPRING BARLEY PER HECTARE

	LOW	TYPICAL	HIGH
Grain yield (tonnes)	4.0	5.0	6.5
Price per tonne (£)		150	
Grain output (£)	**600**	**750**	**975**
Straw yield (tonnes)	3.0	3.5	4.5
Price per tonne (£)		70	
Straw output (£)	**210**	**245**	**315**
OUTPUT (£)	**810**	**995**	**1,290**
		£	
Seed 187 kg		86	
Fertiliser 120: 55:55		200	
Sprays herbicide		25	
fungicide		35	
growth regulator		12	
Sundries twine etc.		25	
Total Variable Costs		**383**	
GROSS MARGIN	**427**	**612**	**907**

(a) Grain price - estimated on the basis of 15% moisture content with grain sold at harvest for animal feed. For information on seasonal price movements see page 15.

(b) Seed - 80% certified second generation, 20% farm saved.

(c) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(d) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(e) Sprays - post emergent herbicide.
- fungicide spray for mildew and rhynchosporium.
- insecticide spray for leather jackets may be used after a grass ley.

SPRING OATS PER HECTARE

	LOW	TYPICAL	HIGH
Grain yield (tonnes)	3.8	5.0	5.8
Price per tonne (£)		160	
Grain output (£)	**608**	**800**	**928**
Straw yield (tonnes)	3.3	3.6	4.2
Price per tonne (£)		60	
Straw output (£)	**198**	**216**	**252**
OUTPUT (£)	**806**	**1,016**	**1,180**
		£	
Seed 187 kg		97	
Fertiliser 80: 55: 55		160	
Sprays herbicide		25	
fungicide		25	
growth regulator		12	
Sundries twine etc.		25	
Total Variable Costs		**344**	
GROSS MARGIN	**462**	**672**	**836**

(a) Grain price - estimated on the basis of 15% moisture content with grain sold at harvest for animal feed.

(b) Seed - 100% certified second generation.

(c) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(d) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations.
See pages 87 to 90 for further details.

(e) Sprays - post emergent herbicide.
- fungicide, mildew spray.
- growth regulator.
- insecticide may be used following grass at £20 per hectare.

WINTER BARLEY PER HECTARE

		LOW	TYPICAL	HIGH
Grain yield (tonnes)		6.0	7.0	7.8
Price per tonne (£)			150	
Grain output (£)		**900**	**1,050**	**1,170**
Straw yield (tonnes)		3.5	5.0	5.5
Price per tonne (£)			70	
Straw output (£)		**245**	**350**	**385**
OUTPUT (£)		**1,145**	**1,400**	**1,555**
			£	
Seed	187 kg		86	
Fertiliser	150: 70: 70		250	
Sprays	herbicide		35	
	fungicide (x2)		70	
	insecticide		8	
	growth regulator		12	
Sundries	twine etc.		25	
Total Variable Costs			**486**	
GROSS MARGIN		**659**	**914**	**1,069**

(a) Grain price - estimated on the basis of 15% moisture content with grain sold at harvest for animal feed. For information on seasonal price movements see page 15.

(b) Seed 100% certified second generation.

(c) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(d) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(e) Sprays - pre or post emergence herbicide.
- April/May, 2 spray fungicide program.
- insecticide for barley yellow dwarf virus.
- growth regulator.

WINTER OATS PER HECTARE

	LOW	TYPICAL	HIGH
Grain yield (tonnes)	5.0	6.5	8.0
Price per tonne (£)		160	
Grain output (£)	**800**	**1,040**	**1,280**
Straw yield (tonnes)	3.7	4.3	5.0
Price per tonne (£)		60	
Straw output (£)	**222**	**258**	**300**
OUTPUT (£)	**1,022**	**1,298**	**1,580**
		£	
Seed 187 kg		101	
Fertiliser 100: 55: 80		180	
Sprays herbicide		35	
fungicide (x 2)		70	
growth regulator		12	
Sundries twine etc.		25	
Total Variable Costs		**423**	
GROSS MARGIN	**599**	**875**	**1,157**

(a) Grain price - estimated on the basis of 15% moisture content with grain sold at harvest for animal feed.

(b) Seed - 100% certified second generation.

(c) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(d) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(e) Sprays - pre emergent herbicide.
- 2 spray fungicide program.
- growth regulator.
- insecticide (Barley Yellow Dwarf Virus) may be required.

WINTER WHEAT PER HECTARE

	LOW	TYPICAL	HIGH
Grain yield (tonnes)	7.0	8.0	9.5
Price per tonne (£)		160	
Grain output (£)	**1,120**	**1,280**	**1,520**
Straw yield (tonnes)	4.5	5.0	5.5
Price per tonne (£)		60	
Straw output (£)	**270**	**300**	**330**
OUTPUT (£)	**1,390**	**1,580**	**1,850**

		£
Seed	187 kg	92
Fertiliser	180: 70: 70	280
Sprays	herbicide	35
	fungicide (x3)	120
	growth regulator	12
Sundries	twine etc.	25
Total Variable Costs		**564**
GROSS MARGIN	**826**	**1,016**	**1,286**

(a) Grain price - estimated on the basis of 15% moisture content with grain sold at harvest for animal feed.

(b) Seed - 100% certified second generation.

(c) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(d) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(e) Sprays - pre or post emergence herbicide.
- fungicides for control of septoria,ear diseases and mildew/yellow rust if required.
- growth regulator.

SPRING OILSEED RAPE PER HECTARE

		LOW	TYPICAL	HIGH
Yield (tonnes)		1.8	2.4	2.9
Price per tonne (£)			350	
Seed output (£)		**630**	**840**	**1,015**
OUTPUT (£)		**630**	**840**	**1,015**
			£	
Seed	8 kg		68	
Fertiliser	80: 30: 0		200	
Sprays	insecticide		15	
	fungicide		35	
	desiccant		35	
Slug pellets			15	
Total Variable Costs			**368**	
GROSS MARGIN		**262**	**472**	**647**

(a) Price estimated on the basis of 'double low' varieties sold at harvest.

(b) Yield based on 9% moisture content, desiccant applied 7 to 14 days before harvesting.

(c) Sowing date between late March and mid April. Oilseed rape should not be grown more than 1 year in 5 on the same land.

(d) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(e) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(f) Sprays - insecticide for pollen beetle/seed weevil.
- herbicide is normally not necessary.
- fungicide for light leaf spot and/or sclerotinia.

WINTER OILSEED RAPE PER HECTARE

		LOW	TYPICAL	HIGH
Yield (tonnes)		2.6	3.3	4.0
Price per tonne (£)			350	
Seed output (£)		**910**	**1,155**	**1,400**
OUTPUT (£)		**910**	**1,155**	**1,400**
			£	
Seed	4 kg		72	
Fertiliser	190: 50: 20		270	
Sprays	herbicide		55	
	fungicide		35	
	desiccant		35	
Slug pellets			15	
Total Variable Costs			**482**	
GROSS MARGIN		**428**	**673**	**918**

(a) Price estimated on the basis of 'double low' varieties sold at harvest.

(b) Yield based on 9% moisture content, desiccant applied 7 to 14 days before harvesting.

(c) Sowing date, mid August to early September. Oilseed rape should not be grown more than 1 year in 5 on the same land.

(d) Fertiliser - Fertiliser application rate based on a medium type soil with a Soil Nitrogen Supply Index of 2, a Soil Phosphate Index of 2 and a Soil Potash Index of 2+

(e) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(f) Sprays - pre or post emergence herbicide.
- fungicide for light leaf spot and/or sclerotinia.

SEED POTATOES PER HECTARE

				LOW		TYPICAL		HIGH
		£/t		£		£		£
Seed ( ) tonnes	@	180	(14)	2,520	(21)	3,780	(25)	4,500
Ware ( ) tonnes	@	130	(5)	650	(8)	1,040	(10)	1,300
Chats ( ) tonnes	@	10	(1)	10	(2)	20	(3)	30
OUTPUT				**3,180**		**4,840**		**5,830**
		£/t						
Seed 4.0t	@	200				800		
Fertiliser 95 : 195 : 185						400		
Sprays herbicide						45		
fungicide (blight x 7)						130		
desiccant (burning down)						40		
aphidicide						25		
Potato inspection fees				113		147		166
Total Variable Costs				**1,553**		**1,587**		**1,606**
GROSS MARGIN				**1,627**		**3,253**		**4,224**

(a) Potato inspection fees quoted are those proposed for 2012. They comprise a growing crop inspection fee of £46 per hectare and tuber inspection fees and labels of £4.80 per tonne.

(b) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations. See pages 87 to 90 for further details.

(c) Seed cost depends on variety used and class of seed planted.

(d) Potato sacks are supplied by the merchant.

(e) Price per tonne - Prices for potatoes can vary significantly from year to year and even during the season.

(f) Output of seed per hectare (£)

Price per tonne	Seed Yield (tonnes per hectare)				
£	14	17	20	22	25
100	1,400	1,700	2,000	2,200	2,500
120	1,680	2,040	2,400	2,640	3,000
140	1,960	2,380	2,800	3,080	3,500
160	2,240	2,720	3,200	3,520	4,000
180	2,520	3,060	3,600	3,960	4,500
200	2,800	3,400	4,000	4,400	5,000
220	3,080	3,740	4,400	4,840	5,500

FIRST EARLY POTATOES PER HECTARE

				LOW		TYPICAL		HIGH
		£/t		£		£		£
Ware ( ) tonnes	@	270	(14)	3,780	(19)	5,130	(22)	5,940
Chats (1) tonne	@	10		10		10		10
OUTPUT				**3,790**		**5,140**		**5,950**
		£/t						
Seed 3.5t	@	250				875		
Fertiliser 120 : 130 : 200						410		
Sprays herbicide						35		
fungicide (blight x 2)						30		
Potato sacks	@	8.00		112		152		176
Total Variable Costs				**1,462**		**1,502**		**1,526**
GROSS MARGIN				**2,328**		**3,638**		**4,424**

(a) Budget assumes haulm chopping rather than burning down.

(b) Seed **-** cost depends on variety used and class of seed planted.

(c) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations.
See pages 87 to 90 for further details.

(d) Potato sacks **-** 25kg paper bags typically 20p per bag.

(e) Price per tonne - Prices for potatoes can vary significantly from year to year and even during the season.

(f) Output of ware per hectare (£)

Price per tonne	Early Ware Yield (tonnes per hectare)			
£	10	15	20	25
100	1,000	1,500	2,000	2,500
150	1,500	2,250	3,000	3,750
200	2,000	3,000	4,000	5,000
250	2,500	3,750	5,000	6,250
300	3,000	4,500	6,000	7,500

MAINCROP WARE POTATOES PER HECTARE

				LOW		TYPICAL		HIGH
		£/t		£		£		£
Ware ( ) tonnes	@	130	(33)	4,290	(40)	5,200	(45)	5,850
Chats (2) tonnes	@	10		20		20		20
OUTPUT				**4,310**		**5,220**		**5,870**
		£/t						
Seed 3.0t	@	200				600		
Fertiliser 100 :180 : 200						400		
Sprays herbicide						35		
fungicide (blight x 9)						135		
desiccant (burning down)						40		
Slug pellets						15		
Potato boxes	@	10.50		347		420		473
Total Variable Costs				**1,572**		**1,645**		**1,698**
GROSS MARGIN				**2,738**		**3,575**		**4,172**

(a) Seed **-** cost depends on variety used and class of seed planted.

(b) Fertiliser - For individual farms, fertiliser application rates must be in accordance with the Nitrate and Phosphorous Regulations.
See pages 87 to 90 for further details.

(c) Potato boxes **-** £70.00 per 1 tonne with a 15% depreciation charge (i.e. £10.50 per tonne per year).

(d) Price per tonne - Prices for potatoes can vary significantly from year to year and even during the season. In 2011, market prices were relatively very low compared to previous years. In the above budget, it is assumed that in the 2012 season, prices will return to levels similar to that obtained in previous years.

(e) Output of ware per hectare (£)

Price per tonne	Ware Yield (tonnes per hectare)				
£	20	25	30	35	40
70	1,400	1,750	2,100	2,450	2,800
90	1,800	2,250	2,700	3,150	3,600
100	2,000	2,500	3,000	3,500	4,000
120	2,400	3,000	3,600	4,200	4,800
140	2,800	3,500	4,200	4,900	5,600

CEREAL SPRAYS

	Main use	Examples of proprietary products	Approximate cost per hectare (£)
Herbicides	Spring cereals (Broad spectrum)	Ally SX, Jubilee SX, Starane XL, Harmony M, Compitox Plus	16 to 31
	Winter cereals (Broad spectrum)	**Pre-emergence –** Crystal, Firebird.	21 to 43
	Winter cereals (Broad spectrum)	**Post-emergence -** Ally SX, Jubilee SX, Othello	16 to 40
Fungicides	Barley (Broad spectrum)	Amistar Pro, Punch-C, Fandango, Siltra, Bontima	21 to 49
	Wheat (Broad spectrum)	Folicur, Silvacur, Opera, Opus, Proline, Aviator, Brutus	25 to 58
	(Mildew)	Corbel	19 to 30
Insecticides	Spring cereals (leatherjackets)	Dursban, Cyren	14 to 19
	Winter barley (aphids - vector BYDV)	Decis, Hallmark, Sumi-Alpha,	5 to 10

This list is not exhaustive and no criticism is implied of products which have been omitted. The products listed above are for example purposes only. **No pesticide should be used without careful reference to the manufacturer's label especially regarding crop suitability.**

GRAIN DRYING AND STORAGE

(i) Moist grain storage

@ 16% moisture content requires 5.5 litres per tonne propionic acid.
@ 20% moisture content requires 7.5 litres per tonne propionic acid.
@ 24% moisture content requires 9.5 litres per tonne propionic acid.
@ 28% moisture content requires 11.5 litres per tonne propionic acid.

Propionic acid costs approximately 130-175 pence per litre.

(ii) Grain drying

Contract charges - handling charge approximately £2.00 per tonne plus £3-4 per 1% moisture removed.

(iii) Bulk storage requirements (whole grain)

Barley 1.45 cubic metres per tonne.
Wheat 1.35 cubic metres per tonne.
Oats 1.95 cubic metres per tonne.

(iv) Weight and weight loss on drying to 15% Moisture Content

Original MC	**Equiv. Weight of 100t dried To 15% MC (t)**	**% Weight loss**
15	100.0	0
17	97.7	2.3
19	95.3	4.7
21	92.9	7.1
23	90.6	9.4
25	88.2	11.8
27	85.9	14.1

(v) Anticipated growers prices for barley (ex-farm) 2011/2012

Feed Barley (£/tonne)

November 2011	155
January 2012	160
March	165
May	165

OILSEED RAPE SPRAYS

	Examples of proprietary products	Approximate cost per hectare (£)
Herbicides	**Post-emergence -** Kerb, Butisan, Galera	30 to 65
Fungicides	Folicur, Proline	25 to 44

This list is not exhaustive and no criticism is implied of products which have been omitted. The products listed above are for example purposes only. **No pesticide should be used without careful reference to the manufacturer's label especially regarding crop suitability.**

POTATO SPRAYS

		Examples of proprietary products	Approximate cost per hectare (£)
Herbicides	Broad Spectrum	Sencorex, Linuron, Titus, Retro	20 to 75
	Couchgrass	Glyphosate, Laser	35 to 70
Fungicides		Bravo 500, Dithane 945, Invader, Fubol Gold, Shirlan, Curzate, Infinito, Prompto	7 to 30
Desiccants		Reglone, Harvest, Sulphuric acid[1],Spolight	35 to 46

(Haulm chopping can be an alternative to spraying.)

[1] Sulphuric acid normally applied by a contractor

This list is not exhaustive and no criticism is implied of products which have been omitted. The products listed above are for example purposes only. **No pesticide should be used without careful reference to the manufacturer's label especially regarding crop suitability.**

GRASSLAND VARIABLE COSTS

(i) Grazing Variable Costs

Stocking rate (ce/ha)	Fertiliser N kg/ha	Fertiliser £/ha	Other variable costs (£)	Total variable cost per hectare (£)
1.4	60	62	51	113
1.5	75	78	51	129
1.6	90	93	51	144
1.7	105	109	51	160
1.8	120	124	51	175
1.9	135	140	51	191
2.0	**150**	**156**	**51**	**207**
2.1	170	176	51	227
2.2	190	197	51	248
2.3	210	218	51	269
2.4	230	239	51	290
2.5	250	259	51	310

In the dairy cow and dairy follower budgets in this handbook, a stocking rate of 2 cow equivalents per hectare is used, i.e. the grazing variable costs are £207 per hectare. For other grazing livestock budgets a stocking rate of 1.8 cow equivalents per hectare is used i.e. the grazing variable costs are £175 per hectare. If these stocking rates are considered to be inappropriate for a specific farming situation, a more appropriate stocking rate and variable costs per hectare can be selected. Readers should be aware that the implementation of the Nitrates Action Plan may impact on permitted stocking rates on farms (see pages 95 to 97 for further details)

(ii) Grazing - other variable costs

a) Grassland reseeding costs

				£ per hectare
Ground limestone	5	tonnes @	17 £/t	85
Grass seed	35	kg @	4.64 £/kg	162
Fertiliser 60 : 50 : 50				130
Spray - sward kill				30
- herbicide				30
Total Cost				**437**

(1) The quantity of lime and fertiliser applied will depend on soil analysis.
(2) For autumn reseeds the old sward may be burnt down with a Glyphosate or Roundup spray prior to ploughing.
(3) With a sward life of 10 years the annual reseeding allowance would be £43.70 per hectare.

b) Grassland spraying costs

The annual cost of herbicide is estimated at £7.50 per hectare – assumes spray 1 year in 4 against grassland weeds at cost of £30.00 per hectare.

(iii) Silage Variable Costs

	£ per hectare	£ per tonne
Fertiliser 190 : 50 : 100	260	6.50
Other variable costs	51	1.28
Contractors charge	425	10.63
Additives	68	1.70
Polythene	5	0.13
Total Cost	**809**	**20.24**

(1) The yield of silage is assumed to be 40 tonnes per hectare.
(2) The sward life is assumed to be 10 years.
(3) Contractor cost includes mowing, harvesting and buckraking 2.5 cuts into the silo.
(4) The total variable cost per tonne of silage (assuming an unchanged yield) with the contractor taking 2 cuts is £18.12. This increases to £22.37 with 3 cuts.
(5) When the farmer uses his own machinery, the total variable cost per tonne of silage is £9.61.
(6) Costs per tonne for additive would be lower for systems involving fewer cuts. Additive costs range from £0.50 to £4.00 per tonne depending on the additive used and the conditions - typically £1.70 per tonne.
(7) Silage as a cash crop. To achieve a gross margin of £200 per hectare, a farmer would require a price of £25.23 per tonne.

(iv) Silage Additives

Category	Examples of products	Approximate cost per tonne Ensiled (£)
Acid based	Add-F, Add-safeR, Co-Sil.	0.50 - 4.00
Sugar based	Molasses, molassed sugar beet pulp Sweet n' Dry.	1.00 - 3.00
Enzymes	Exellex, Clampzyme.	1.50 - 3.00
Inoculants	Bioferm Gold, Ecosyl	0.90 - 2.00
Salts	Ultrasile	2.00 - 2.50
Enzymes plus inoculements	Axphast gold, Supersile gold	1.10 - 1.75

This list is not exhaustive and there is no implied criticism of products omitted.

(v) Hay Variable Costs

	£ per hectare	£ per tonne	Pence per 20 kg bale
Fertiliser 130 : 40 : 40	185	23	46
Reseeding allowance	51	6	13
Contract - mowing	35	4	9
- turning (x2)	32	4	8
- bailing (inc. twine)	200	25	50
Total Cost	**503**	**63**	**126**

(1) A yield of 8 tonnes per hectare is assumed.
(2) The variable cost per 20 kg bale of hay for a farmer using his own machinery would be 59p
(3) A hay crop cut in mid July and sold for £2.00, £2.50 or £3.00 per 20 kg bale would generate gross margins of £297, £497 and £697 per hectare respectively. These figures rise to £564, £764 and £964 per hectare if contractor costs are disregarded. As approximately 60% of total grass production occurs by mid July these gross margins are effectively from 0.6 hectares.

(vi) Grassland sprays

Main Use	Examples of proprietary products	Approximate Cost per hectare (£)
Chickweed (non clover swards)	Transfer, Mircam Plus.	15 to 22
Chickweed (will protect clover swards)	Triad	29
Ragwort	2-4D Ester, (e.g Depitox)	9 to 13
Thistle	2-4-D, MCPA	9 to 10
Nettle	Nushot, Grazon, Blaster.	60 to 120
Docks (non clover swards)	Doxstar, Starane, Forefront Dockmaster Grassland.	38 to 45
Docks (will protect clover swards)	Squire.	41
Sward Kill	Roundup Biactive, Clinic, Glyphosate.	13 to 30

This list is not exhaustive and there is no criticism implied of products omitted.

(vii) Seasonality of production

	% of Harvestable Dry Matter
April	11
May	19
June	20
July	17
August	14
September	12
October	3
November to March	4
Total	**100**

(viii) Stocking rates on farms in Northern Ireland

Average stocking rates and the corresponding range on Northern Ireland farms are shown for the main enterprises. The differences illustrate the variation in stocking rates found in practice.

Stocking rate (ce/ha)

	Average	**Range**
Dairy cows	1.93	1.39 to 2.44
Dairy followers	2.31	1.97 to 2.65
Sucklers cows (new LFA)	1.63	1.26 to 1.98
Dairy calf to beef systems	2.05	1.75 to 2.48
Beef calf to beef systems	1.36	1.23 to 1.56
Breeding ewes (lowland)	1.60	1.40 to 2.03

Source: Northern Ireland Farm Business Survey, 2010/11.

(ix) Coefficients for converting into cow equivalents (ce)

Type of Livestock	ce
Dairy cow	1.0
Beef cow (excluding calf)	0.8
Breeding bull	1.0
Other cattle	
under 1 year old	0.4
between 1 and 2 years old	0.6
over 2 years old	0.8
Breeding ewe and lamb(s)	0.2
Breeding ram	0.2
Lamb 6 months to 1 year old	0.1
Other sheep over 1 year old	0.2

(1) One cow equivalent is usually defined in terms of annual metabolizable energy requirements to maintain a 625 kg Friesian cow, produce 4,500 litres of milk and a 45 kg calf.

(2) To calculate the total cow equivalents on a farm, the annual average livestock numbers should be multiplied by the appropriate cow equivalent coefficient.

(3) To calculate the stocking rate on a farm (cow equivalents per hectare) the total cow equivalents are divided by the area of grassland plus the adjusted areas of rough grazing and forage crops.

(4) To calculate stocking rate of grazing livestock, allowances should strictly be made for variation in output, e.g. yield per cow or liveweight gain per head and also for quantities of non-forage feed consumed by each category of livestock.

(x) Typical nutrient content of animal manures at spreading

Manure		Total Nutrient			Available Nutrient [1]		
Form	% DM	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Fresh FYM [2]	---------- (kg/t) ----------						
Cattle	25	6.0	3.5	8.0	0.3- 1.2	2.1	4.8
Pig	25	7.0	7.0	5.0	0.3- 1.4	4.2	3.0
Poultry Manure	---------- (kg/t) ----------						
Layer Manure	30	15	13	9	0.1- 5.2	7.9	6.8
Broiler Litter	60	29	25	18	0.3-10.1	15.0	14.0
Slurries	---------- (kg/m^3) ----------						
Dairy [3]	6	3.0	1.2	3.5	0.1- 0.9	0.6	3.2
Beef [3]	6	2.3	1.2	2.7	0.1- 0.7	0.6	2.4
Pig [3]	6	5.0	3.0	3.0	0.2- 1.8	1.5	2.7

[1] Nutrients available for utilisation by the next crop. In the case of nitrogen, availability is dependent on soil type and time of application. Figures given assume surface application and higher figures relate to spring application.

[2] N and K_2O values will be lower if farm yard manure (FYM) is stored under open conditions for long periods.

[3] Undiluted slurry typically contains 10% dry matter (DM), but with rain dilution the DM content may be lowered to 6% and under.

(xi) Approximate conversion factors

1 hectare = 2.471 acres
1 metre = 3.279 feet
1 m^3 = 220 gallons
1 litre = 0.22 gallon
1 kilogram = 2.205 pounds
100 kg/ha = 80 units/acre

DAIRY COWS - JAN/FEB CALVING (60% SUMMER MILK)

		LOW	TYPICAL	HIGH
Milk yield (litres)		5,100	5,800	6,300
	ppl	£	£	£
Milk sales	@ 25.5	**1,301**	**1,479**	**1,607**
Calves			**100**	
Less herd replacement cost			**240**	
OUTPUT		**1,161**	**1,339**	**1,467**
	£			
Concentrates	@ 245	400	455	494
Grazing	0.275 @ 207		57	
Silage	9.0 @ 20.24		182	
Sundries (AI, vet, misc)			100	
Total Variable costs		**739**	**794**	**833**
GROSS MARGIN PER COW		**422**	**545**	**633**
GROSS MARGIN PER HECTARE @ (2 ce/ha)		**843**	**1,090**	**1,267**
GROSS MARGIN PER 1,000 LITRES		**83**	**94**	**101**

(1) Milk price forecast on the basis of compositional quality and the seasonality of production. Net of all deductions.

(2) 93 calves sold or transferred per 100 dairy cows.

(3) Herd replacement cost:
- 24% replacement rate and 4% mortality are typical.
- replacement cost £1400; cull cow value £480.

(4) Concentrate usage of 0.32kg/litre assumed

(5) For details of grazing and silage variable costs, see pages 18 and 19.

(6) Sensitivity analysis

Change in typical gross margin (£)

	per cow	per hectare
± 1 ppl in milk	58.00	116.00
± £5/t in concentrates price	9.28	18.56
± 100 litres milk	11.81	23.63

DAIRY COWS - MARCH/APRIL CALVING (70% SUMMER MILK)

			LOW	TYPICAL	HIGH
Milk yield (litres)			4,800	5,300	5,800
		ppl	£	£	£
Milk sales		@ 25.3	**1,214**	**1,341**	**1,467**
Calves				**120**	
Less herd replacement cost				**240**	
OUTPUT			**1,094**	**1,221**	**1,347**
		£			
Concentrates		@ 245	318	351	384
Grazing	0.325	@ 207		67	
Silage	7.0	@ 20.24		142	
Sundries (AI, vet, misc)				100	
Total Variable costs			**626**	**660**	**693**
GROSS MARGIN PER COW			**468**	**561**	**655**
GROSS MARGIN PER HECTARE @ (2 ce/ha)			**936**	**1,123**	**1,310**
GROSS MARGIN PER 1,000 LITRES			**97**	**106**	**113**

(1) Milk price forecast on the basis of compositional quality and the seasonality of production. Net of all deductions.

(2) 93 calves sold or transferred per 100 dairy cows.

(3) Herd replacement cost:
- 24% replacement rate and 4% mortality are typical.
- replacement cost £1400; cull cow value £480.

(4) Concentrate usage of 0.27kg/litre assumed

(5) For details of grazing and silage variable costs, see pages 18 and 19.

(6) Sensitivity analysis

Change in typical gross margin (£)

	per cow	per hectare
± 1 ppl in milk	53.00	106.00
± £5/t in concentrates price	7.16	14.31
± 100 litres milk	12.86	25.71

DAIRY COWS - OCT/NOV CALVING (55% SUMMER MILK)

			LOW	TYPICAL	HIGH
Milk yield (litres)			5,500	6,500	7,300
		ppl	£	£	£
Milk sales		26.0	**1,430**	**1,690**	**1,898**
Calves				**120**	
Less herd replacement cost				**249**	
OUTPUT			**1,301**	**1,561**	**1,769**
		£			
Concentrates		@ 245	431	510	572
Grazing	0.250	@ 207		52	
Silage	10.0	@ 20.24		202	
Sundries (AI, vet, misc)				120	
Total Variable costs			**805**	**884**	**946**
GROSS MARGIN PER COW			**495**	**677**	**822**
GROSS MARGIN PER HECTARE @ (2 ce/ha)			**991**	**1,354**	**1,645**
GROSS MARGIN PER 1,000 LITRES			**90**	**104**	**113**

(1) Milk price forecast on the basis of compositional quality and the seasonality of production. Net of all deductions.

(2) 93 calves sold or transferred per 100 dairy cows.

(3) Herd replacement cost:
- 25% replacement rate and 4% mortality are typical.
- replacement cost £1400; cull cow value £480.

(4) Concentrate usage of 0.32kg/litre assumed

(5) For details of grazing and silage variable costs, see pages 18 and 19.

(6) Sensitivity analysis

Change in typical gross margin (£)

	per cow	per hectare
± 1 ppl in milk	65.00	130.00
± £5/t in concentrates price	10.40	20.80
± 100 litres milk	12.40	24.81

DAIRY COWS - AVERAGE CALVING PATTERN (58% SUMMER MILK)

			LOW	TYPICAL	HIGH
Milk yield (litres)			5,800	6,300	6,800
		ppl	£	£	£
Milk sales		26.0	**1,508**	**1,638**	**1,768**
Calves				**120**	
Less herd replacement cost				**249**	
OUTPUT			**1,379**	**1,509**	**1,639**
		£			
Concentrates		@ 245	441	478	516
Grazing	0.262	@ 207		54	
Silage	9.5	@ 20.24		192	
Sundries (AI, vet, misc)				110	
Total Variable costs			**797**	**835**	**873**
GROSS MARGIN PER COW			**582**	**674**	**766**
GROSS MARGIN PER HECTARE @ (2 ce/ha			**1,164**	**1,348**	**1,532**
GROSS MARGIN PER 1,000 LITRES			**100**	**107**	**113**

(1) Average calving pattern in Northern Ireland:-

January/February	25%
March/April	20%
May to September	15%
October to December	40%

(2) Milk price forecast on the basis of compositional quality and the seasonality of production. Net of all deductions.

(3) 93 calves sold or transferred per 100 dairy cows.

(3) Herd replacement cost:
- 25% replacement rate and 4% mortality are typical.
- replacement cost £1400; cull cow value £480.

(5) Concentrate usage of 0.31kg/litre assumed

(6) For details of grazing and silage variable costs, see pages 18 and 19.

(7) Sensitivity analysis

Change in gross margin(£)

	per cow	per hectare
± 1 ppl in milk	63.00	126.00
± £5/t in concentrates price	9.77	19.53
± 100 litres milk	12.75	25.49

DAIRY HEIFER REPLACEMENTS - AUTUMN BORN (2011)

	30 MONTH CALVING			24 MONTH CALVING	
	Physical		Financial	Physical	Financial
			£		£
Value of heifer (allowing for barreners and rejects)			1400		1400
Less value of calf (plus 2% mortality allowance)			250		250
OUTPUT PER HEIFER			**1150**		**1150**
Calf rearing costs to 3 months			83		83
4-6 months (indoors)		£			
Concentrates (17% protein)	125 kg	@245	31	250 kg	61
Silage	0.7 tonnes	@20.24	14	0.7 tonnes	14
Bedding straw	0.15 tonnes		11	0.15 tonnes	11
Veterinary and miscellaneous			8		10
7-12 months (at grass)					
Concentrates (15% protein)	25 kg	@230	6	180 kg	41
Grazing	0.15 ha	@207	31	0.17 ha	35
Veterinary and miscellaneous			14		14
13-18 months (indoors)					
Barley and minerals	160 kg	@180	29	360 kg	65
Silage	5 tonnes	@20.24	101	4.5 tonnes	91
AI, Veterinary and miscellaneous			13		33
19-24 months (at grass)					
Grazing	0.21 ha	@207	43	0.23 ha	48
AI, Veterinary and miscellaneous			38		13
25-30 months (indoors)					
Barley and minerals	180 kg	@180	32		
Silage	6 tonnes	@20.24	121		
Veterinary and miscellaneous			5		
Total Variable Costs			**580**		**519**
GROSS MARGIN PER HEIFER			**570**		**631**
GROSS MARGIN PER HECTARE @ (2 ce/ha)			**815**		**1262**

DAIRY HEIFER REPLACEMENTS - AUTUMN BORN (CONTINUED)

(1) See page 32 for details of calf rearing costs.

(2) For details of grazing & silage variable costs, see pages18 and 19.

(3) Sensitivity analysis

Change in gross margin (£)

	30 month calving	
	per head	per hectare
± £50 in heifer value	50	71
± £10 in calf price	10	15

Change in gross margin (£)

	24 month calving	
	per head	per hectare
± £50 in heifer value	50	100
± £10 in calf price	10	20

(4) Targets weights (kilograms)

Age (months)	Autumn born	
	24 month calving	30 month calving
3	85	85
6	155	145
12	290	260
18	415	355
24	560	460
30	-	580

Target daily liveweight gain (kgs/day)

Age (months)	Autumn born	
	24 month calving	30 month calving
3-6	0.78	0.67
6-12	0.75	0.64
12-18	0.69	0.53
18-24	0.81	0.58
24-30	-	0.67

DAIRY HEIFER REPLACEMENTS - SPRING BORN (2012)

	27 MONTH CALVING			24 MONTH CALVING		
	Physical		Financial	Physical		Financial
			£			£
Value of heifer (allowing for barreners and rejects)			1400			1400
Less value of calf (plus 2% mortality allowance)			250			250
OUTPUT PER HEIFER			**1150**			**1150**
Calf rearing costs to 3 months			83			83
4-9 months (at grass)		£				
Concentrates (17% protein)	100 kg	@245	25	180 kg		44
Grazing	0.14 ha	@207	29	0.15 ha		31
Veterinary and miscellaneous			14			14
10-15 months (indoors)						
Barley and minerals	360 kg	@180	65	405 kg		73
Silage	3.5 tonnes	@20.24	71	3.75 tonnes		76
Veterinary and miscellaneous			8			10
16-21 months (at grass)						
Barley and minerals	0 kg	@180	0	50 kg		9
Grazing	0.21 ha	@207	43	0.22 ha		46
AI, Veterinary and miscellaneous			38			34
22-24 months (indoors)						
Barley and minerals	25 kg	@180	5	135 kg		24
Silage	2.75 tonnes	@20.24	56	2.50 tonnes		51
Veterinary and miscellaneous			7			5
25-27 months (indoors)						
Barley and minerals	65 kg	@180	12			
Silage	2.75 tonnes	@20.24	56			
Veterinary and miscellaneous			7			
Total Variable Costs			**517**			**499**
GROSS MARGIN PER HEIFER			**633**			**651**
GROSS MARGIN PER HECTARE @ (2 ce/ha)			**1057**			**1301**

DAIRY HEIFER REPLACEMENTS - SPRING BORN (CONTINUED)

(1) See page 32 for details of calf rearing costs.

(2) For details of grazing & silage variable costs, see pages 18 and 19.
It is assumed that silage is harvested by contractor.

(3) Sensitivity analysis

Change in gross margin (£)

	27 month calving	
	per head	per hectare
± £50 in heifer value	50	84
± £10 in calf price	10	17

Change in gross margin (£)

	24 month calving	
	per head	per hectare
± £50 in heifer value	50	100
± £10 in calf price	10	20

(4) Target weights (kgs)

Age (months)	Spring born	
	24 month calving	27 month calving
3	85	85
9	215	195
15	345	300
21	485	435
24	560	500
27	-	580

Target daily liveweight gain (kgs/day)

Age (months)	Spring born	
	24 month calving	27 month calving
3-9	0.72	0.61
9-15	0.72	0.58
15-21	0.78	0.75
21-24	0.83	0.72
24-27	-	0.89

BULL CALF REARING (TO 3 MONTHS)

		kg		£/tonne	TYPICAL £/head
Milk substitute		20	@	1820	36
Concentrates	(18% Protein)	85	@	260	22
	(17% Protein)	25	@	245	6
Hay		20	@	125	3
Bedding Straw		70	@	65	5
Veterinary & sundries					17
Total variable costs					**89**

(1) Intake per calf of milk substitute depends on the system of feeding. A calf would consume 35 kg of milk substitute in 6 weeks on ad libitum feeding system whereas on a bucket rearing system the intake per calf would be between 16 and 24 kg.

(2) When whole milk is fed to calves, 135 litres would provide the same energy and protein as 20 kg of milk substitute.

(3) A heifer calf will consume less concentrates over the first three months (80 to 90 kg). The rearing cost for a dairy heifer calf would be approximately £83.

(4) Vaccination will cost approximately £9 per calf.

(5) The daily liveweight gain during the first 3 months will average 0.7 kg.

(6) Typical liveweights at 3 months of age are 120 kg for bull calves and 110 kg for heifer calves.

LIVEWEIGHT TO DEADWEIGHT PRICE CONVERSION TABLE

Liveweight Price (pence per kg)	**Deadweight Price** (pence per kg)							
	Kill out							
	48%	50%	52%	54%	56%	58%	60%	62%
140	291.7	280.0	269.2	259.3	250.0	241.4	233.3	225.8
142	295.8	284.0	273.1	263.0	253.6	244.8	236.7	229.0
144	300.0	288.0	276.9	266.7	257.1	248.3	240.0	232.3
146	304.2	292.0	280.8	270.4	260.7	251.7	243.3	235.5
148	308.3	296.0	284.6	274.1	264.3	255.2	246.7	238.7
150	312.5	300.0	288.5	277.8	267.9	258.6	250.0	241.9
152	316.7	304.0	292.3	281.5	271.4	262.1	253.3	245.2
154	320.8	308.0	296.2	285.2	275.0	265.5	256.7	248.4
156	325.0	312.0	300.0	288.9	278.6	269.0	260.0	251.6
158	329.2	316.0	303.8	292.6	282.1	272.4	263.3	254.8
160	333.3	320.0	307.7	296.3	285.7	275.9	266.7	258.1
162	337.5	324.0	311.5	300.0	289.3	279.3	270.0	261.3
164	341.7	328.0	315.4	303.7	292.9	282.8	273.3	264.5
166	345.8	332.0	319.2	307.4	296.4	286.2	276.7	267.7
168	350.0	336.0	323.1	311.1	300.0	289.7	280.0	271.0
170	354.2	340.0	326.9	314.8	303.6	293.1	283.3	274.2
172	358.3	344.0	330.8	318.5	307.1	296.6	286.7	277.4
174	362.5	348.0	334.6	322.2	310.7	300.0	290.0	280.6
176	366.7	352.0	338.5	325.9	314.3	303.4	293.3	283.9
178	370.8	356.0	342.3	329.6	317.9	306.9	296.7	287.1
180	375.0	360.0	346.2	333.3	321.4	310.3	300.0	290.3
182	379.2	364.0	350.0	337.0	325.0	313.8	303.3	293.5
184	383.3	368.0	353.8	340.7	328.6	317.2	306.7	296.8
186	387.5	372.0	357.7	344.4	332.1	320.7	310.0	300.0
188	391.7	376.0	361.5	348.1	335.7	324.1	313.3	303.2
190	395.8	380.0	365.4	351.9	339.3	327.6	316.7	306.5
192	400.0	384.0	369.2	355.6	342.9	331.0	320.0	309.7
194	404.2	388.0	373.1	359.3	346.4	334.5	323.3	312.9
196	408.3	392.0	376.9	363.0	350.0	337.9	326.7	316.1
198	412.5	396.0	380.8	366.7	353.6	341.4	330.0	319.4
200	416.7	400.0	384.6	370.4	357.1	344.8	333.3	322.6
210	437.5	420.0	403.8	388.9	375.0	362.1	350.0	338.7
220	458.3	440.0	423.1	407.4	392.9	379.3	366.7	354.8
230	479.2	460.0	442.3	425.9	410.7	396.6	383.3	371.0
240	500.0	480.0	461.5	444.4	428.6	413.8	400.0	387.1

18 MONTH HEIFER BEEF

(October/November 2012 born continental type calves)

				TYPICAL	HIGH
	kg(dwt)		p/kg	£/head	£/head
Finished Heifer	275	@	315	866	866
Less Value of calf plus 2% mortality allowance				230	230
OUTPUT				**636**	**636**
Calf rearing costs to 3 months				83	83
4-6 months (indoors)			£/t		
Concentrates (17% protein)	2.0 to 1.0 kg/day	@	245	44	22
Silage	1.5 tonnes	@	20.24	30	30
Veterinary and miscellaneous				6	6
7-12 months (at grass)			£/t		
Concentrates (15% protein)	100 kg to 30 kg	@	230	23	7
			£/ha		
Grazing	0.15 ha	@	175	26	26
Veterinary and miscellaneous				8	8
13-18 months (indoors)			£/t		
Barley and minerals	4.3 to 2.0 kg/day	@	180	139	65
Silage	4.5 to 5 tonnes	@	20.24	91	101
Veterinary and miscellaneous				6	6
Total variable costs				**457**	**354**
GROSS MARGIN PER HEAD				**179**	**282**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**479**	**756**
Number of cattle finished per hectare				3.3	3.2
Interest charge per head (@ 4%)				28	24

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Two levels of concentrate requirements are given. The lower quantity is required with 'GOOD' quality silage (6 to 7 weeks regrowth, 70 D) and the higher level with 'MEDIUM' quality silage (10 weeks regrowth, 60 D).

18 MONTH HEIFER BEEF (CONTINUED)

(3) Number of housed and grazing days and daily liveweight gain (DLWG)

	1st Winter Housed	Grass	2nd Winter Housed
Days	90	180	180
DLWG (kg)	0.75	0.9	0.9

(4) For details of grazing & silage variable costs, see pages 18 and 19. Where silage is harvested by the farmer, gross margins would increase by approximately £6 per tonne of silage used.

(5) Sensitivity analysis

Change in gross margin (£)

	Quality of silage			
	MEDIUM		**GOOD**	
	per head	per hectare	per head	per hectare
+ £10 in calf value	10	27	10	27
+ 5p/kg in sale value	14	37	14	37

22 MONTH STEER BEEF

(October/November 2012 born continental type calves)

				TYPICAL	HIGH
	kg(dw t)		p/kg	£/head	£/head
Finished steer	320	@	305	976	976
Less Value of calf plus 2% mortality allowance				280	280
OUTPUT				**696**	**696**
Calf rearing costs to 3 months				89	89
4-6 months (indoors)			£/t		
Concentrates (17% protein)	2.5 to 1.0 kg/day	@	245	55	22
Silage	1.2 tonnes	@	20.24	24	24
Veterinary and miscellaneous				6	6
7-12 months (at grass)			£/t		
Concentrates (15% protein)	110 kg to 40 kg	@	230	25	9
			£/ha		
Grazing	0.15 ha	@	175	26	26
Veterinary and miscellaneous				8	8
13-18 months (indoors)			£/t		
Concentrates (15% protein)	2.0 to 0.5 kg/day	@	230	83	21
Silage	4.5 to 5 tonnes	@	20.24	91	101
Veterinary and miscellaneous				6	6
19-22 months (at grass)			£/t		
Barley and minerals	130 kg to 60 kg	@	180	23	11
			£/ha		
Grazing	0.17 ha	@	175	30	30
Veterinary and miscellaneous				7	7
Total variable costs				**474**	**360**
GROSS MARGIN PER HEAD				**222**	**336**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**461**	**701**
Number of cattle finished per hectare				2.2	2.1
Interest charge per head (@ 4%)				38	34

22 MONTH STEER BEEF (CONTINUED)

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Two levels of concentrate requirements are given. The lower quantity is requiredwith 'GOOD' quality silage (6 to 7 weeks regrowth, 70 D) and the higher level with 'MEDIUM' quality silage (10 weeks regrowth, 60 D).

(3) Weight at 3 Months: 120 kg lwt.

Daily liveweight gain (kg)	
0.75 (3 months to turnout)	0.6 Housed (1st winter)
0.90 At grass (1st summer)	1.0 At grass (2nd summer)

(4) Grazing and silage costs - see pages 18 and 19.

(5) Sensitivity analysis

Change in gross margin (£)

	Quality of silage			
	MEDIUM		GOOD	
	per head	per hectare	per head	per hectare
± £10 in calf value	10	21	10	21
± 5p/kg in sale value	16	33	16	33

24 MONTH STEER BEEF

(January/February 2012 born continental type calves)

				TYPICAL	HIGH
	kg(dw t)		p/kg	£/head	£/head
Finished steer	335	@	315	1055	1055
Less Value of calf plus 2% mortality allowance				280	280
OUTPUT				**775**	**775**
Calf rearing costs to 3 months				89	89
4-9 months (at grass)			£/t		
Concentrates (15% protein)	100 to 50 kg	@	230	23	12
			£/ha		
Grazing	0.11 ha	@	175	19	19
Veterinary and miscellaneous				8	8
10-15 months (indoors)			£/t		
Concentrates (15% protein)	1.8 to 0.5 kg/day	@	230	75	21
Silage	4 to 4.5 tonnes	@	20.24	81	91
Veterinary and miscellaneous				5	5
16-21 months (at grass)			£/ha		
Grazing	0.20 ha	@	175	35	35
Veterinary and miscellaneous				8	8
22-24 months (indoors)			£/t		
Barley and minerals	6.7 to 3.0 kg/day	@	180	109	49
Silage	2.75 to 3.0 tonnes	@	20.24	56	61
Veterinary and miscellaneous				4	4
Total variable costs				**511**	**401**
GROSS MARGIN PER HEAD				**265**	**375**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**476**	**675**
Number of cattle finished per hectare				2.09	2.0
Interest charge per head (@ 4%)				43	38

24 MONTH STEER BEEF (CONTINUED)

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Two levels of concentrate requirements are given.
The lower quantity is required with 'GOOD' quality silage (6 to 7 weeks regrowth, 68 D) and the higher levels with 'MEDIUM' quality silage (10 weeks regrowth, 60 D).

(3) Weight at 3 Months: 120 kg lwt.

Daily liveweight gain (kg)	
0.75 At grass (1st summer)	0.90 At grass (2nd summer)
0.60 Housed (1st winter)	1.0 Housed (2nd winter)

(4) Grazing and silage costs - see pages 18 and 19.

(5) Sensitivity analysis

Change in gross margin (£)

	Quality of silage			
	MEDIUM		GOOD	
	per head	per hectare	per head	per hectare
± £10 in calf value	10	18	10	18
± 5p/kg in sale value	17	30	17	30

28 MONTH STEER BEEF

(April/May 2012 born continental type calves)

			TYPICAL	HIGH
	kg(dw t)	p/kg	£/head	£/head
Finished steer	365 @	315	1,150	1,150
Less Value of calf plus 2% mortality allowance			280	280
OUTPUT			**870**	**870**
Calf rearing costs to 3 months			89	89
4-5 months (at grass)		£/t		
Concentrates (17% Protein)	60 to 30 kg @	245	15	7
		£/ha		
Grazing	.04 ha @	175	7	7
Veterinary and miscellaneous			8	8
6-11 months (indoors)		£/t		
Concentrates (15% Protein)	2 to 1 kg/day @	230	83	41
Silage	3 to 4 tonnes @	20.24	61	81
Veterinary and miscellaneous			5	5
12-17 months (at grass)		£/ha		
Grazing	0.16 ha @	175	28	28
Veterinary and miscellaneous			8	8
18-23 months (indoors)		£/t		
Concentrates (15% Protein)	2 to 1 kg/day @	230	83	41
Silage	5 to 5.5 tonnes @	20.24	101	111
Veterinary and miscellaneous			5	5
24-28 months (outdoors)		£/ha		
Grazing	0.25 ha @	175	44	44
Veterinary and miscellaneous			8	8
Total variable costs			**544**	**484**
GROSS MARGIN PER HEAD			**326**	**386**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha			**466**	**552**
Number of cattle finished per hectare			1.5	1.5
Interest charge per head (@ 4%)			52	49

28 MONTH STEER BEEF (CONTINUED)

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Steers over 30 months of age may be subject to price deductions.

(3) Two levels of concentrate requirements are given. The lower quantity is required with 'GOOD' quality silage (6 to 7 weeks regrowth, 68 D) and the higher level with 'MEDIUM' quality silage (10 weeks regrowth, 60 D).

(4) Weight at 3 Months: 120 kg lwt.

Daily Liveweight Gain (kg)	
0.75 At grass	0.50 Housed (2nd Winter)
0.60 Housed (1st Winter)	1.00 At grass
0.90 At grass	

(5) Grazing and silage costs - see pages 18 and 19.

(6) Sensitivity Analysis

Change in Gross Margin (£)

	Quality of silage			
	MEDIUM		GOOD	
	per head	per hectare	per head	per hectare
+ £10 in calf value	10	14	10	14
+ 5p/kg in sale value	18	26	18	26

CEREAL BULL BEEF

(Friesian type calves)

				TYPICAL
	kg(dwt)		p/kg	£ /head
Finished Bull	260	@	295	767
Less Value of calf plus 2% mortality allowance				115
OUTPUT				**652**
Calf rearing costs to 3 months				89
4-13 months			£/t	
Concentrates (13-15% Protein)	2 tonnes	@	230	460
Straw				15
Veterinary and miscellaneous				30
Total variable costs				**594**
GROSS MARGIN PER HEAD				**58**
Interest charge per head (@ 4%)				18

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Bulls are potentially dangerous. Guidance on the handling of bulls can be obtained from DARD.

(3) Market outlets for bull beef should be identified before production is commenced.

(4) Friesian type bull calves finished at 13 months of age. DLWG of 1.3 kg between 4 and 13 months of age

(5) Sensitivity analysis

Change in gross margin (£)

	per head
± £10 in calf value	10
± 5p/kg in sale value	13.0
± £10/t in concentrate price	20

GRASS SILAGE BULL BEEF

(Born spring 2012 continental type calves)

				TYPICAL	HIGH
	kg(dwt)		p/kg	£/head	£/head
Finished Bull	325	@	315	1,024	1,024
Less Value of calf plus 2% mortality allowance				280	280
OUTPUT				**744**	**744**
Calf rearing costs to 3 months				89	89
4-6 months			£/t		
Concentrates (17% Protein)	0.5 to 0.3 tonnes	@	245	123	74
Silage	0.5 to 1.0 tonnes	@	20.24	10	20
Veterinary and miscellaneous				12	12
7-14 months					
Concentrates (15% Protein)	1.4 to 0.9 tonnes	@	230	322	207
Silage	5.0 to 6.0 tonnes	@	20.24	101	121
Veterinary and miscellaneous				17	17
Total variable costs				**673**	**540**
GROSS MARGIN PER HEAD				**70**	**204**
GROSS MARGIN PER HECTARE @ 2 ce/ha				**234**	**510**
Number of cattle finished per hectare				6.7	5.0
Interest charge per head (@ 4%)				29	26

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(2) Bulls are potentially dangerous. Guidance on the handling of bulls can be obtained from DARD.

(3) Market outlets for bull beef should be identified before production is commenced.

(4) Two levels of concentrate requirements are given. The lower quantity is required with 'GOOD' quality silage (6 to 7 weeks regrowth, 68 D) and the higher level with 'MEDIUM' quality silage (10 weeks regrowth, 60 D). Care should be exercised with silage intake levels to avoid under finished animals at 15 months.

GRASS SILAGE BULL BEEF (CONTINUED)

(5) Continental type bull calves born during the spring and finished at 14 months of age. DLWG of 1.40 kg between 4 and 14 months of age.

(6) Silage costs - see page 19.

(7) Sensitivity Analysis

Change in Gross Margin (£)

	Quality of silage			
	MEDIUM		GOOD	
	per head	per hectare	per head	per hectare
+ £10 in calf value	10	33	10	25
+ 5p/kg in sale value	16	54	16	41
+ £10/t in concentrate price	19	63	12	30

CALF TO STORE SYSTEM

(January 2012 born continental type calves)

				TYPICAL
	kg(lwt)		£/100kg	£/head
Sale	390	@	175	683
Less value of calf plus 2% mortality allowance				280
OUTPUT				**403**
Calf rearing cost to 3 months				89
4 - 10 months (at grass)			£/t	
Concentrates (17% protein)	100 kg	@	245	25
Grazing	0.15 ha	@	175	26
Veterinary and miscellaneous				10
11 - 16 months (indoors)				
Concentrates (15% protein)	1.5 kg/day	@	230	62
Silage	4.5 tonnes	@	20.24	91
Veterinary and miscellaneous				12
Total Variable Costs				**315**
GROSS MARGIN PER CALF				**88**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**208**
Interest per head (@ 4%)				23

(1) January born continental type bull calves sold during the following spring ; 3.8 cattle per hectare.

(2) Weight at 3 Months: 120 kg lwt.

Daily liveweight gain (kg): - At grass 0.8
- Housed 0.6

LOWLAND SUCKLER COWS - MAY/JUNE CALVING (2012)

						TYPICAL
	sold per cow		kg(lwt)		£/100kg	£/head
Calves	0.98	@	320	@	185	580
Less herd replacement cost						57
calf purchases	0.08					22
OUTPUT						**501**
					£/t	
Concentrates - cow & calf			150 kg	@	180	27
					£/ha	
Grazing			0.31 ha	@	175	54
					£/t	
Silage - cow			8 tonnes	@	20.24	162
- calf			2.5 tonnes	@	20.24	51
Veterinary and miscellaneous						45
Total Variable Costs						**339**
GROSS MARGIN PER COW						**162**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha						**258**

(1) Calves weaned during March/April (10 months old) at a liveweight between 300 and 340 kg. 0.96 calves born per cow and 6 per cent mortality birth to weaning.

(2) Herd replacement cost

Cow purchase price	£1,150
Cull cow price	£900
Replacement/Mortality	15% replacement rate and 1% mortality per annum
Bull depreciation	£10 per cow/year

(3) Daily liveweight gain

	At grass	Housed
Bulls	1kg	0.9kg
Heifers	1kg	0.9kg

(4) For details of grazing & silage variable costs, see pages 18 and 19.

(5) Sensitivity analysis

Change in Gross Margin (£)

	per cow	per hectare
± £10/t in concentrate price	2	2
± £5/100 kg in sale price	16	25
± 0.1 calves sold per cow	59	94

LOWLAND SUCKLER COWS - FEBRUARY/MARCH CALVING (2012)

					TYPICAL
	sold per cow		kg(lwt)	£/100kg	£/head
Calves	0.98	@	270 @	185	490
Less herd replacement cost					57
calf purchases	0.10				28
OUTPUT					**405**
				£/t	
Concentrates - calf			50 kg @	245	12
- cow			50 kg @	180	9
				£/ha	
Grazing			0.30 ha @	175	53
				£/t	
Silage - cow			7 tonnes @	20.24	142
Veterinary and miscellaneous					50
Total Variable Costs					**265**
GROSS MARGIN PER COW					**140**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha					**237**

(1) Calves weaned during October. DLWG of 0.95 kg. 0.94 calves born per cow and 6 per cent mortality birth to weaning.

(2) Herd replacement cost

Cow purchase price	£1,150
Cull cow price	£900
Replacement/Mortality	15% replacement rate and 1% mortality per annum
Bull depreciation	£10 per cow/year

(3) For details of grazing & silage variable costs, see pages 18 and 19.

(4) Sensitivity analysis

Change in gross margin (£)

	per cow	per hectare
+ £10/t in concentrate price	1	2
+ £5/100 kg in sale price	13	22
± 0.1 calves sold per cow	50	85

LOWLAND SUCKLER COWS - SEPTEMBER/OCTOBER CALVING (2012)

TYPICAL

	sold per cow	kg(lwt)		£/100kg	£/head
Calves	0.98	@ 280	@	185	508
Less herd replacement cost					57
calf purchases	0.10				28
OUTPUT					**423**
				£/t	
Concentrates - calf		150 kg	@	245	37
- cow		200 kg	@	180	36
				£/t	
Silage - cow		8 tonnes	@	20.24	162
- calf		1 tonnes	@	20.24	20
				£/ha	
Grazing		0.28 ha	@	175	49
Veterinary and miscellaneous					55
Total Variable Costs					**359**
GROSS MARGIN PER COW					**64**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha					**106**

(1) Calves weaned during June. DLWG of 0.95 kg. 0.94 calves born per cow and 6 per cent mortality birth to weaning.

(2) Herd replacement cost

Cow purchase price	£1,150
Cull cow price	£900
Replacement/Mortality	15% replacement rate per annum
	1% mortality per annum
Bull depreciation	£10 per cow/year

(3) For details of grazing & silage variable costs, see pages 18 and 19.

(4) Sensitivity analysis

Change in gross margin (£)

	per cow	per hectare
± £10/t in concentrate price	4	6
± £5/100 kg in sale price	14	23
± 0.1 calves sold per cow	52	85

HILL SUCKLER COWS - SPRING CALVING (2012)

	sold per cow		kg(lwt)		£/100kg	TYPICAL £/head
Calves	0.94	@	230	@	185	400
Less herd replacement cost						55
calf purchases	0.06					17
OUTPUT						**328**
			kg		£/t	
Barley and minerals			110	@	180	20
Grazing						34
			tonnes		£/t	
Silage			6	@	20.24	121
Veterinary and miscellaneous						45
Total Variable Costs						**220**
GROSS MARGIN PER COW						**108**

(1) Calves weaned during October. 0.92 calves born per cow and 4 per cent mortality birth to weaning.

(2) Herd replacement cost

Cow purchase price	£1,000
Cull cow price	£750
Replacement/Mortality	15% replacement rate per annum
	1% mortality per annum
Bull depreciation	£10 per cow/year

(3) For details of grazing & silage variable costs, see pages 18 and 19.

Change in gross margin (£)

	per head
± £10/t in concentrate price	1
± £5/100 kg in sale price	11
± 0.1 calves sold per cow	43

BEEF HEIFER REPLACEMENTS - SPRING BORN 2012
24 MONTH CALVING

				TYPICAL
				£/head
Value of heifer (allowing for barreners & rejects)				1050
Less Value of calf plus 2% mortality allowance				260
OUTPUT				**790**
Calf rearing costs to 3 months				83
4-9 months (at grass)			£/t	
Concentrates (17% protein)	20 kg	@	245	5
			£/ha	
Grazing	0.11 ha	@	175	19
Veterinary and miscellaneous				11
10-15 months (indoors)			£/t	
Barley and minerals	400 kg	@	180	72
Silage	4.5 tonnes	@	20.24	91
Veterinary and miscellaneous				8
16-21 months (at grass)				
Grazing	0.19 ha	@	175	33
AI Bull charges, veterinary and miscellaneous				27
22-24 months (indoors)			£/t	
Barley and minerals	40 kg	@	180	7
Silage	3 tonnes	@	20.24	61
Veterinary and miscellaneous				3
Total variable costs				**420**
GROSS MARGIN PER HEAD				**370**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**653**

(1) Production of a continental cross Friesian heifer. Target weights:-

320 kg at 15 months
520 kg at 24 months

(2) 2.1 heifer replacements per hectare.

BEEF HEIFER REPLACEMENTS - SPRING BORN - 24 MONTH CALVING (CONTINUED)

(3) For details of grazing & silage variable costs, see pages 18 and 19.

(4) Sensitivity analysis

Change in gross margin (£)

	per head	per hectare
± £10 in heifer values	10	18
± £10 in calf prices	10	18

FINISHING SUCKLED STEER CALVES

(Purchased Autumn 2012)

			TYPICAL
	kg (dwt)	p/kg	£/head
Sale of finished steer	360 @	320	1,152
	kg (lwt)	£/100 kg	
Less Value of calf plus 2% mortality allowance	265 @	195	517
OUTPUT			**635**
		£/t	
9-14 months (indoors)			
Concentrates (17% Protein)	2.0 kg/day @	245	88
Silage	3.5 tonnes @	20.24	71
Veterinary and miscellaneous			9
		£/t	
15-20 months (at grass)			
Barley and minerals	40 kg @	180	7
		£/ha	
Grazing	0.19 ha @	175	33
Veterinary and miscellaneous			10
21-24 months (indoors)			
Barley and minerals	6 kg/day @	180	130
Silage	3 tonnes @	20.24	61
Veterinary and miscellaneous			9
Total variable costs			**418**
GROSS MARGIN PER HEAD			**217**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha			**531**
Interest charge per head (@ 4%)			36

(1) Continental calves born during the spring 2012, purchased at the autumn suckler sales and sold at 2 years of age. 2.8 steers finished per hectare.

	1st Winter Housed	Grass	2nd Winter Housed
Days	180	180	120
DLWG (kg)	0.6	0.9	1.0
Concentrates (kg)	360	40	720

(2) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies.

(3) Sensitivity analysis

Change in gross margin (£)

	per head	per hectare
+ £5/100 kg in purchase price	13	32
+ 5p/kg in sale prices	17	42

WINTER (2012/2013) STEER FINISHING
400 KG STORE

				TYPICAL
	kg (dwt)		p/kg	£/head
Sale of finished steer	340	@	315	1,071
	kg(lwt)		p/kg	
Less Purchase	400	@	190	760
OUTPUT				**311**
			£/t	
Barley and minerals	4 kg/day	@	180	166
Silage	7 tonnes	@	20.24	142
Veterinary and miscellaneous				9
Total Variable Costs				**316**
GROSS MARGIN PER HEAD				**-5**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**-25**
Interest charge per head (@ 4%)				23

(1) Continental cross steers purchased during the autumn of 2012 and finished in 230 days in house with a DLWG of 0.95kg. 5.7 steers finished per hectare. Deadweight price is net of marketing expenses.

(2) Cattle are sold at 22 months.

(3) Gross margin under various purchase and sale price scenarios.

Gross margin (£ per head)

		Purchase Price p/kg (lwt)				
		160	**170**	**180**	**190**	**200**
Sale price (pence per per kg (dwt))	**260**	-72	-112	-152	-192	-232
	280	-4	-44	-84	-124	-164
	300	64	24	-16	-56	-96
	320	132	92	52	12	-28
	340	200	160	120	80	40

WINTER (2012/2013) STEER FINISHING
500 KG STORE

				TYPICAL
	kg(dwt)		p/kg	£/head
Sale of finished steer	360	@	315	1,134
	kg(lwt)		p/kg	
Less Purchase	500	@	185	925
OUTPUT				**209**
			£/t	
Barley and minerals	4 kg/day	@	180	108
Silage	5 tonnes	@	20.24	101
Veterinary and miscellaneous				9
Total Variable Costs				**218**
GROSS MARGIN PER HEAD				**-9**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**-67**
Interest charge per head (@ 4%)				17

(1) Continental cross steers. Purchased during the autumn 2012 and housed for 150 days with a daily liveweight gain of 1.0 kg. An average of 8.0 steers finished per hectare. Deadweight price is net of marketing expenses.

(3) Silage costs - see page 19.

(3) Gross margin under various purchase and sale price scenarios.

Gross margin per head

		Purchase Price p/kg (lwt)				
		150	**160**	**170**	**180**	**190**
Sale price (pence per per kg (dwt))	**260**	-32	-82	-132	-182	-232
	280	40	-10	-60	-110	-160
	300	112	62	12	-38	-88
	320	184	134	84	34	-16
	340	256	206	156	106	56

SUMMER STEER FINISHING 2012
420 KG STORE

				TYPICAL
	kg(dwt)		p/kg	£/head
Sale of finished steer	330	@	310	1,023
	kg(lwt)		£/100kg	
Less Purchase	420	@	195	819
OUTPUT				**204**
			£/t	
Barley and Minerals	20 kg	@	180	4
			£/ha	
Grazing	0.25 ha	@	175	44
Veterinary and miscellaneous				10
Total Variable Costs				**57**
GROSS MARGIN PER HEAD				**147**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**880**
Interest charge per head (@ 4%)				17

(1) Sale price is after deduction of marketing expenses which include fees for meat inspection, grading, insurance, offal disposal, clipping, R&D and LMC levies

(2) Continental cross steers. Purchased during the spring 2012 and grazed for 180 days with a daily liveweight gain of 1.0 kg. An average of 4.0 steers grazed per hectare.

(3) Grazing variable costs - see page 18.

(4) Average Northern Ireland stocking rates for summer cattle finishing would typically be lower with approximately 2.6 cattle finished per hectare.

(5) Gross margin under various purchase and sale price scenarios.

Gross margin per head

		Purchase price p/kg (lwt)				
		170	**180**	**190**	**200**	**210**
Sale price (pence per per kg (dwt))	**260**	87	45	3	-39	-81
	280	153	111	69	27	-15
	300	219	177	135	93	51
	320	285	243	201	159	117
	340	351	309	267	225	183

'TRADITIONAL' STORE TO BEEF SYSTEM

(Purchased October 2012)

				TYPICAL
	kg(dwt)		p/kg	£/head
Sale of finished steer	350	@	310	1,085
	kg(lwt)		£/100kg	
Less Purchase	360	@	190	684
OUTPUT				**401**
			£/t	
Barley and minerals	300 kg	@	180	54
Silage	5.5 tonnes	@	20.24	111
			£/ha	
Grazing	0.22 ha	@	175	39
Veterinary and miscellaneous				20
Total Variable Costs				**224**
GROSS MARGIN PER HEAD				**177**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha				**531**
Interest charge per head (@ 4%)				31

(1) Continental cross steers. Purchased during October 2012 and finished one year later. 2.8 cattle finished per hectare. Deadweight price is net of marketing expenses.

	Housed	Grass 2nd year
Days	180	180
DLWG (kg)	0.55	1.0
Concentrates (kg)	300	NIL

(2) Grazing and silage costs - see pages 18 and 19.

(3) Average Northern Ireland stocking rates for summer cattle finishing would typically be lower with approximately 1.6 cattle finished per hectare.

(4) Sensitivity analysis

	Change in gross margin (£)	
	per head	per hectare
± £5/100kg in purchase price	18	50
± 1p/kg in sale price	4	11

SUMMER GRAZING OF STORE CATTLE 2012

			TYPICAL
	kg(lwt)	£/100kg	£/head
Sale of store steer	450 @	190	855
Less Purchase	300 @	200	600
OUTPUT			**255**
		£/t	
Barley and minerals	40 kg @	180	7
		£/ha	
Grazing	0.18 ha @	175	32
Veterinary and miscellaneous			12
Total Variable Costs			**51**
GROSS MARGIN PER HEAD			**204**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha			**1,223**
Interest charge per head (@ 4%)			12

(1) Continental cross steer purchased during the Spring 2012 and grazed for 180 days with a daily liveweight gain of 0.85 kg. An average of 5.6 steers grazed per hectare.

(2) Grazing variable costs - see page 18.

(3) At the average Northern Ireland stocking rate of 1.65 cow equivalents per hectare, 4.5 steers would be stocked per hectare.

(4) Gross margin under various purchase and sale price scenarios.

Gross margin per head

		Purchase Price p/kg (lwt)				
		170	**180**	**190**	**200**	**210**
Sale price (pence per per kg (lwt)	**160**	159	129	99	69	39
	170	204	174	144	114	84
	180	249	219	189	159	129
	190	294	264	234	204	174
	200	339	309	279	249	219

LOWLAND BREEDING EWES - MID MARCH LAMBING

	kg		p/kg		LOW £		TYPICAL £		HIGH £
Lambs (no.) sold finished	21	@	400	(1.20)	101	(1.40)	118	(1.60)	134
Wool							2		
Less Flock replacement cost							19		
OUTPUT					**84**		**100**		**117**
	kg		£/t						
Concentrates	55	@	230				13		
Grassland (including hay/silage)							22		
Veterinary and miscellaneous							13		
Total Variable Costs							**48**		
GROSS MARGIN PER EWE					**36**		**53**		**69**
GROSS MARGIN PER HECTARE @ 1.8 ce/ha					**323**		**474**		**625**

(1) Lamb sales pattern (%)

	June	July	Aug	Sept	Oct to Dec
Mid March lambing	17	19	14	13	37
Mid April lambing	4	14	21	25	36

(2) Sale price of lambs is net of marketing expenses.

(3) A stocking rate of 9 ewes per hectare is assumed in this budget.

(4) Flock replacement cost. Ewe replacement rate of 25% (inclusive of 5% ewe mortality). Ewes purchased at £120 and culls sold at £65. Rams purchased at £350 and sold after 3 years at £75.

(5) If replacements are retained rather than purchased, the flock replacement cost will fall, but so too will lamb output.

(6) Flocks in the new LFA will have a similar physical performance.

(7) Grazing, silage and hay costs - see pages 18 - 20.

(8) Sensitivity analysis

Change in gross margin(£)

	TYPICAL	
	per ewe	per hectare
± 0.1 in lambs reared per ewe	8.4	76
± 10p/kg in sale value	2.9	26
± £20/t in concentrate price	1.1	10

LOWLAND BREEDING EWES
EARLY (DECEMBER/JANUARY) LAMBING

	kg	p/kg		LOW £		TYPICAL £		HIGH £
Lambs (no.) sold finished	21 @	440	(1.05)	97	(1.30)	120	(1.45)	134
Wool						2		
Less Flock replacement cost						19		
OUTPUT				**80**		**103**		**117**
	kg		£/t					
Concentrates - ewe	70	@	230			16		
lambs	35	@	225			8		
Grazing and hay/silage						26		
Veterinary and miscellaneous						16		
Total Variable Costs						**66**		
GROSS MARGIN PER EWE				**14**		**37**		**51**
GROSS MARGIN PER HECTARE @ 2.5 ce/ha				**172**		**461**		**634**

(1) Lamb sales pattern (%)

April	May	June	July	Aug to Nov
15	20	20	15	30

Some producers may be able to sell up to 90% of their lambs before the end of June.

(2) Sale price of lambs is net of marketing expenses.

(3) A stocking rate of 12.5 ewes per hectare is assumed in this budget. Stocking rate is higher than that achieved by 'Mid March' lambing due to the earlier lamb sales.

(4) Flock replacement cost . Ewe replacement rate of 25% (inclusive of 5% ewe mortality). Ewes purchased at £120 and culls sold at £65. Rams purchased at £350 and sold after 3 years at £75.

(5) With this production system, housing is normally required at lambing. Approximately 0.10 fewer lambs will be reared per ewe than for 'Mid March' lambing.

LOWLAND BREEDING EWES - EARLY (DECEMBER/JANUARY) LAMBING (CONTINUED)

(6) Flocks in the new LFA will have a similar physical performance.

(7) Grazing, silage and hay costs - see pages 18 - 20.

(8) Sensitivity analysis

Change in gross margin (£)

	TYPICAL	
	per ewe	per hectare
± 0.1 in lambs reared per ewe	9.2	116
± 10p/kg in sale value	2.7	34
± £20/t in concentrate price	2.1	26

UPLAND BREEDING EWES - CROSSBRED TYPE IN SDA

	kg @ p/kg		LOW £		TYPICAL £		HIGH £
Lambs sales (no.)	21 @ 390	(0.74)	61	(0.98)	80	(1.12)	92
	16 @ 390	(0.31)	19	(0.42)	26	(0.48)	30
Wool					2		
Less Flock replacement cost					19		
OUTPUT			**63**		**89**		**104**

	kg		£/t	
Concentrates	65	@	230	15
Grazing and hay				22
Veterinary and miscellaneous				13
Total Variable Costs				**50**
GROSS MARGIN PER EWE				**39**

(1) For the typical flock, 70% of lambs are sold fat at 21kg halfweight, 30% as stores at 16kg halfweight.

(2) Sale price of lambs is net of marketing expenses.

(3) Flock replacement. Ewe replacement rate of 25% (inclusive of 5% mortality). Ewe replacements purchased at £120 each and culls sold at £65 each. Rams purchased at £350 each and sold after 3 years for £75.

(4) Sensitivity analysis

Change in gross margin(£)

	TYPICAL
	per ewe
± 0.1 in lambs reared per ewe	7.6
± 10p/kg in sale value	2.7
± £20/t in concentrate price	1.3

HILL BREEDING EWES - MOUNTAIN TYPE IN SDA

				LOW		TYPICAL		HIGH	
					£		£		£
	kg		p/kg						
Lamb sales (no.)	20	@	380	(0.21)	16	(0.27)	21	(0.33)	25
	14	@	380	(0.49)	26	(0.63)	34	(0.77)	41
			£/head						
Cull ewes	0.18	@	55				10		
Wool							2		
Less Flock replacement cost							3		
OUTPUT					**51**		**63**		**75**
	kg		£/t						
Concentrates	55	@	230				13		
Grazing							16		
Veterinary and miscellaneous							13		
Total Variable Costs							**42**		
GROSS MARGIN PER EWE					**9**		**21**		**33**

(1) 25 lambs per 100 ewes retained as replacements.

(2) Lambs sales, 30% sold fat at 20kg halfweight and 70% sold as stores at 14kg halfweight.

(3) Sale price of lambs is net of marketing expenses.

(4) Flock replacement. Rams purchased at £350 each and sold after 3 years for £75

(5) Ewe mortality of 7% per annum.

(6) Sensitivity analysis

Change in gross margin(£)

	TYPICAL
	per ewe
± 0.1 in lambs reared per ewe	6.0
± 10p/kg in lamb sale value	2.0
± £20/t in concentrate price	1.1

STORE LAMB (16 kg +) FINISHED ON GRASS

	kg (halfweight)	p/kg	TYPICAL £
Lamb sale	21	@ 390	82
Less lamb purchase	16	@ 390	62
OUTPUT (feeder's margin)			**20**
Grazing			3
Veterinary and miscellaneous			2
Total Variable Costs			**5**
GROSS MARGIN PER LAMB			**15**

(1) Store lambs are purchased at an average half weight of 16 kg during the summer/autumn and typically grazed for approximately 100 days. Approximately 70% of the finished lambs are sold in the period October to December. Price for finished lambs is net of marketing deductions.

(2) Average weekly liveweight gain of 0.7 kg. However, some producers could achieve a liveweight gain of 1.0 kg per week.

(3) A mortality rate of less than 1% is typical.

(4) Own grazing is charged at £1 per month for each lamb. Rented grass keep would cost approximately £0.55 per lamb per week.

(5) Sensitivity analysis

	Change in gross margin (£)
	per lamb
± 10p per kg halfweight in purchase price	1.60
± 10p per kg halfweight in sale price	2.10

STORE LAMB (14 kg +) FINISHED ON GRASS AND CONCENTRATES

	kg (halfweight)	p/kg	TYPICAL £
Lamb sale	21	@ 390	82
Less lamb purchase	14	@ 390	55
OUTPUT (feeder's margin)			**27**
	kg	£/tonne	
Concentrates	45	@ 225	10
Grazing			5
Veterinary and miscellaneous			2
Total Variable Costs			**17**
GROSS MARGIN PER LAMB			**10**

(1) Store lambs are purchased during the summer/autumn at an average half weight of 14kg and typically grazed for 150 days. Approximately 66% of the finished lambs are sold in the period December to February. Price for finished lambs is net of marketing expenses.

(2) Average weekly liveweight gain of 0.66 kg.

(3) A mortality rate of 1% is typical.

(4) Typically 15kg of concentrates per month are fed for 3 months. However, up to 25kg of concentrates may be fed per month.

(5) Own grazing is charged at £1 per month for each lamb. Rented grass keep would cost approximately £0.55 per lamb per week.

(6) Sensitivity analysis

	Change in gross margin(£) per lamb
± 10p/kg in purchase price	1.40
± 10p/kg in sale value	2.10
± £10/t in concentrate price	0.45
± 10 kg in concentrate use	2.25

STORE LAMB (14 kg) FINISHED ON FORAGE CROPS

	kg (halfweight)			**TYPICAL**
	kg		p/kg	£
Lamb sale	21	@	395	83
Less lamb purchase	14	@	390	55
OUTPUT (feeder's margin)				**28**
	kg/day		£/tonne	days	
Concentrates	0.2	@	225	125	6
			p/day	@	
Grazing			6.1	@ 100	6
Veterinary and miscellaneous					2
Total Variable Costs					**14**
GROSS MARGIN PER LAMB					**15**

(1) Store lambs are purchased at an average halfweight of 14kg during the autumn and typically fed during a 125 day finishing period on forage crops. The finished lambs are assumed to be sold in February.

(2) Price for finished lambs is net of marketing expenses.

(3) Average weekly liveweight gain of 0.8kg.

(4) A mortality rate of 1% is typical.

(5) Forage costs include seed, fertiliser and spray expenses only. No allowance for crop cultivations has been included.

(6) Swedes sown in May and fed from November provide 4,500 lamb grazing days per hectare at a typical variable cost of £275 per hectare or 6.1 pence per lamb grazing day. Stubble turnips sown in July and grazed from November provide 2,500 grazing days per hectare at a typical variable cost of £300 per hectare or 12 pence per lamb grazing day.

(7) Sensitivity analysis

Change in gross margin (£)

	per lamb
+10p/kg in purchase price	1.40
+10p/kg in sale value	2.10

STORE LAMBS FINISHED INDOORS

	kg (halfweight)	TYPICAL
	kg @ p/kg	£
Lamb sale	22 @ 405	89
Less lamb purchase	15 @ 385	58
OUTPUT (feeder's margin)		**31**
	kg £/tonne	
Concentrates	85 @ 225	19
Veterinary and miscellaneous (including fodder)		3
Total Variable Costs		**22**
GROSS MARGIN PER LAMB		**9**

(1) Store lambs are housed in November at an average half weight of 15kg. They are typically finished after 100 (up to 140) days concentrate only feeding period. The finished lambs are sold in the early spring.

(2) Price for finished lambs is net of marketing deductions.

(3) Concentrate intake and liveweight gain

	Store lamb	
	30 kg (lwt)	40 kg (lwt)
Concentrate intake per month (kg)	25	35
Typical weekly liveweight gain (kg)	0.8	1.1

(4) A mortality rate of 2.5% is typical.

(5) Sensitivity analysis

Change in gross margin (£)

	per lamb
+ 10p/kg in purchase price	1.50
+ 10p/kg in sale value	2.20
+ £10/t in concentrate price	0.85
+ 10 kg in concentrate use	2.25

PIG REARING

				LOW		TYPICAL		HIGH
		£/head		£		£		£
Sales (no.) of 39 kg weaners	@	43	(18.0)	774	(21.0)	903	(24.0)	1,032
	number	£/head						
Plus cull sows	0.36	@ 140				50		
Less boar charge						3		
OUTPUT				**821**		**950**		**1,079**
		£/t						
Sow meal		260		337		355		368
Creep and link feeds		470		127		148		169
Grower feed		290		235		274		313
A.I. Costs				21		21		21
Veterinary and miscellaneous				60		60		60
Total Variable Costs				**780**		**858**		**932**
GROSS MARGIN PER SOW				**42**		**92**		**148**
GROSS MARGIN PER WEANED PIG				**2.3**		**4.4**		**6.2**

(1) Herd replacement. It is assumed that sows and boars have an average breeding life of 2.5 years; 1 boar per 75 sows; sow mortality 4.0% and 100% of replacements . retained

(2) As the number of weaners sold per sow increases, the sow meal allocation per weaner falls.

	LOW	TYPICAL	HIGH
Number of weaners sold per sow per year	18	21	24

Meal consumption per weaner (kg)	LOW	TYPICAL	HIGH
Sow meal	72	65	59
Creep & link feeds	15	15	15
Grower feed	45	45	45
Total feed	**132**	**125**	**119**

(3) A.I. Costs - semen cost £4 per bottle. Each sow inseminated on average 2.6 times per year and uses two bottles of semen per insemination.

(4) 'Veterinary and miscellaneous' costs do not include 'fixed costs' such as electricity, water and transport which are directly associated with the pig enterprise - **See page 98 for a breakdown of fixed costs**

(5) Sensitivity analysis

	Change in gross margin (£ per sow)		
	LOW	TYPICAL	HIGH
+ £1 in sale price	18	21	24
+ £5 in average feed price	12	13	14

PIG FINISHING

				TYPICAL
	kg (dwt)		p/kg	£
Sale	80	@	130	104
	kg (lwt)			
Less purchase	39			43
OUTPUT				**61**
	kg		£/t	
Finisher feed	175	@	270	47
Veterinary and miscellaneous				3
Total variable cost				**50**
GROSS MARGIN PER PIG				**11**

(1) Conversion table for converting liveweight to deadweight

kg lwt.	Killing out (KO)%
96 - 102	76
103 - 108	77

(2) Prices for finished animals are net of marketing deductions.

(3) The mortality rate is typically 1%. On average 1 pig in 120 sold is condemned and no payment is received.

(3) Typical feed conversion rate (FCR) of 2.7 : 1. There is a large variation in FCR between units depending on management practices adopted, genetics, slaughter weight and health status.

(4) 'Veterinary and miscellaneous' costs do not include 'fixed costs' such as electricity, water and transport which are associated with the pig enterprise - **See page 98 for a breakdown of fixed costs**

(5) Sensitivity analysis

	Change in gross margin £ per pig
± 1p/kg in sale price	0.80
± £5/tonne in average feed price (FCR 2.7:1)	0.88

PIG REARING AND FINISHING

			LOW		TYPICAL		HIGH
				£		£	£
	kg (dwt)	p/kg					
Sales of pigs (no.) @	80	@ 130	(19)	1,976	(22)	2,288	(25) 2,600
	Number	£/head					
Plus cull sows	0.36	@ 140				50	
Less boar charge						3	
OUTPUT				**2,023**		**2,335**	**2,647**
		£/t					
Sow meal		260		356		372	384
Creep & link feeds		470		134		155	176
Grower feed		290		375		421	464
Finisher feed		270		872		950	1046
A.I. Costs				21		21	21
Veterinary and miscellaneous				100		100	100
Total Variable Costs				**1,857**		**2,019**	**2,191**
GROSS MARGIN PER SOW				**166**		**316**	**456**
GROSS MARGIN PER FINISHED PIG				**8.74**		**14.36**	**18.26**

(1) Sale price for finished animals are net of marketing expenses.

(2) Herd replacement. It is assumed that sows and boars have an average breeding life of 2.5 years; 1 boar per 75 sows; sow mortality 4.0% and 100% of replacements retained.

(3) Mortality 4% weaning to sale. In addition, 1 pig in 120 sold is condemned for which no payment is received.

(4) High performing herds have significantly better FCR than low performing herds.

(5) A.I. Costs - semen cost £4 per bottle. Each sow inseminated on average 2.6 times per year and uses two bottles of semen per insemination

	LOW	TYPICAL	HIGH
Number of weaners sold per sow per year	18.0	20.0	22.0

Meal consumption per finished pig (kg)	LOW	TYPICAL	HIGH
Sow meal	72	65	59
Creep & link feed	15	15	15
Grower feed	68	66	64
Finisher feed	170	160	155
Total feed	**325**	**306**	**293**

(5) 'Veterinary and miscellaneous' costs do not include 'fixed costs' such as electricity, water and transport which are directly associated with the pig enterprise
- **See page 98 for a breakdown of fixed costs**

(6) Sensitivity analysis

Change in gross margin

Change	£ per sow		
	LOW	**TYPICAL**	**HIGH**
± 1p/kg in sale price	15.2	17.6	20.0
± £5/tonne in average feed price	31	34	37

ENRICHED CAGED LAYING HENS

PER HEN HOUSED	TYPICAL pence/dozen	GOOD pence/dozen
Sales	73.80	73.80
Less pullet	12.90	12.50
OUTPUT	**60.90**	**61.30**
Concentrates @£245/t	42.74	40.50
Miscellaneous	2.22	2.14
Total Variable Costs	**44.96**	**42.64**
GROSS MARGIN PER DOZEN (pence)	**15.94**	**18.66**
GROSS MARGIN PER BIRD (£)	**4.31**	**5.23**

(1) Average data per hen housed over the typical 58 week laying cycle

Type of production	Yield (dozen eggs)	Feed used (g. per day)	Mortality (%)
Typical production	27	116	6
Good production	28	114	4

(2) The egg price is a weighted average (by class of egg and market destination) and excludes packaging and marketing costs. Fluctuations in egg prices make it imperative that up to date information is obtained in the preparation of any budget.

(3) Miscellaneous costs are comprised of electricity, water, insurance, repairs, maintenance and sundries. Labour, rent and depreciation are not included in miscellaneous costs.

(4) Sensitivity analysis

	Change in gross margin(£) per hen housed	
	TYPICAL	**GOOD**
± 1p in sale price/dozen	0.27	0.28
± £5/t in feed price	0.24	0.23

(5) Further information and advice may be obtained from DARD's Poultry Technology Service.

FREE RANGE LAYING HENS

PER HEN HOUSED	TYPICAL pence/dozen	GOOD pence/dozen
Sales	94.00	94.00
Less pullet	14.20	13.70
OUTPUT	**79.80**	**80.30**
Concentrates @£265/t	52.93	48.83
Miscellaneous	5.00	4.81
Total Variable Costs	**57.93**	**53.64**
GROSS MARGIN PER DOZEN (pence)	**21.87**	**26.66**
GROSS MARGIN PER BIRD (£)	**5.47**	**6.93**

(1) Average data per hen over the typical 58 week laying cycle

Type of production	Yield (dozen eggs)	Feed Used (g. per day)	Mortality (%)
Typical production	25	123	10
Good production	26	118	6

(2) The egg price is a weighted average and excludes packaging and marketing costs.

(3) Miscellaneous costs are comprised of electricity, water, insurance, repairs, maintenance, litter and sundries. Labour, rent and depreciation are not included in miscellaneous costs.

(5) Sensitivity analysis

	Change in gross margin(£) per hen housed	
	TYPICAL	**GOOD**
± 1p in sale price/dozen	0.25	0.26
± £5/t in feed price	0.25	0.24

(6) Further information and advice can be obtained from DARD's Poultry Technology Service.

BROILERS

				TYPICAL
	kg		p/kg	pence/bird
Sales	2.1	@	74.99	157.48
	No.		£/100	
Less Day Old Chicks	1.03	@	31.00	31.93
OUTPUT				**125.55**
	kg		£/t	
Concentrates	3.3	@	310	102.30
Miscellaneous				14.72
Total Variable Costs				**117.02**
MARGIN PER BIRD (pence)				**8.53**
MARGIN PER 1,000 BIRDS (£)				**85.29**

(1) Most broilers in Northern Ireland are produced under contract to poultrymeat processors. Where growers have invested in new or modernised housing, additional payments may be made.

(2) 40 day production period of mixed sex birds.

(3) 3% mortality is typical

(4) Feed Conversion Ratio of 1.7:1.

(5) Miscellaneous costs include litter, medication, electricity, gas, and cleaning and washing, insurance, maintenance, repairs . and sundries. Labour, rent and depreciation are not included.

(6) Sensitivity analysis

	Change in gross margin	
	per bird (p)	per 1,000 birds (£)
+ 1p/kg in sale price	2.10	21.00
+ £5/t in concentrate price	1.65	16.50
+ 0.01 in FCR	0.60	6.02

(7) Further information and advice may be obtained from DARD's Poultry Technology Service.

NON-THOROUGHBRED HORSES

		TYPICAL £/mare		HIGH £/mare
	sold per mare £		sold per mare £	
Sales - (3 year old)	0.60 @ 3,000	1,800	0.75 @ 5,000	3,750
Less mare depreciation		250		450
OUTPUT		**1,550**		**3,300**
Stud fees		200		500
Registration		25		25
Bedding		100		115
Fodder		215		250
Concentrates		275		310
Veterinary and medicines		280		310
Farrier		225		260
Grazing		50		50
Transport and marketing		125		160
Total Variable Costs		**1495**		**1,980**
GROSS MARGIN PER MARE		**55**		**1,320**

(1) The output and gross margins of horse production are subject to more variation than most farming enterprises.

(2) 'High' performance is associated with premium level efficiency and judgement.

(3) Typical production level - 3 foals produced every 5 years
High production level - 3 foals every 4 years.

(4) Variable costs include costs of rearing offspring (yearling, 2 year old and 3 year old). They are calculated on an average year basis i.e. total associated costs multiplied by 0.6 (typical) and 0.75(high).

(5) Mare Depreciation:
Typical Purchase Price £3000 Cull Value £500 Average Life 10 years
High Purchase Price £5000 Cull Value £500 Average Life 10 years

FARMED DEER

					Venison Sale
	sold finished		kg	£/kg (dwt)	£/hind
Stags	0.43	@	56	@ 4.00	96
Hinds	0.38	@	48	@ 3.80	69
	culls			£/head	
Stags	0.01	@		104	1
Hinds	0.07	@		95	7
Less stags	0.01	@		700	7
Output per hind					**166**
	kg			£/t	
Concentrates	150	@		230	35
Forage cost					30
Veterinary, medicine					9
Sundries - including haulage					12
Total Variable Costs					**86**
GROSS MARGIN PER HIND					**81**

(1) Deer farming is a small enterprise in Northern Ireland. Careful planning, including the identification of possible market outlets, should be undertaken before commencing production.

(2) Hinds sold as breeding stock generally attract a higher price than those sold for venison, although the market for breeding stock is very limited. This budget assumes that replacement hinds are retained rather than bought in.

(3) A stocking rate of up to 7 hinds per hectare is possible.

(4) Farmed deer require fencing but this is not included in the calculation of gross margin per hind

The Single Farm Payment Scheme

The Single Farm Payment (SFP) Scheme was introduced in the United Kingdom on 1 January 2005 and replaced most existing crop and livestock payments.

To claim SFP the applicant must be a farmer undertaking agricultural activity, hold SFP Entitlements on 15 May in any scheme year and, have eligible agricultural land at their disposal on 15 May. Individual field parcels declared to activate SFP entitlements must be at least 0.1 hectares and applicants need to be registered with DARD as a farm business before an application can be processed.

SFP Payment Entitlements

If a farm business did not establish entitlements in 2005 and wishes to claim SFP it will have to obtain entitlements by transfer from another farm business. This transfer could be by sale with or without land, by lease with leased land or through inheritance. To trade entitlements, the applicant needs to be registered and approved by DARD as a farm business. Applications to transfer entitlements must be received by DARD on or before 2 April in the year in which they are to be used in order to be eligible for payment (a guidance booklet on the transfer of entitlements is available on request from the Trading Section, Single Farm Payment Branch, Orchard House).

In 2012, there are two types of Entitlements

- Standard – allocated to most applicants. These must be activated once every two years, otherwise they will be taken from the applicant and returned to the National Reserve.
- Special Entitlements (subject to special conditions) – to be eligible for payment on these the applicant must maintain the level of agricultural activity notified to them by DARD. These entitlements must also be activated once every two years. Special Entitlements can be changed to Standard Entitlements by declaring one eligible hectare of eligible land; once changed over they cannot be changed back.

To activate all the Entitlements held and maximise payment of SFP upon them, the farm business must have an equal number of eligible hectares of agricultural land at its disposal on 15 May. Unless the business states otherwise, DARD will activate entitlements up to the limit supported by the eligible land entered into the scheme on the field data sheet, starting with the highest value entitlements. Where entitlements are of equal unit value, priority will be given to those entitlements which were not activated in the previous year. This ensures that the payment is maximised each year and the value of entitlements returned to the National Reserve is minimised.

Applications

Claims for payment of SFP Entitlements held by the farm business must be made each year on a Single Application Form (SAF). Farmers who completed a SAF in the previous year will automatically be issued with a SAF in March of the following scheme year. Forms are also available upon request from local DARD offices.

Legislation states that the closing date for all Single Application Forms is 15 May without penalty. Applications received between 16 May and up to 9 June will be penalised (except in cases of force majeure/exceptional circumstances). However, where the 15 May or 9 June is a Saturday or Sunday we will accept completed applications on the following Monday.

As the 9 June 2012 is a Saturday, late applications will be accepted until 11 June with penalty.

Other than on grounds of force majeure/ exceptional circumstances late applications will be rejected.

DARD also offers an increasingly popular online application service. Anyone wishing to use this channel must register, in the first instance, with the Government Gateway in order to gain secure access to this and other online services offered by the Department. Applicants intending to submit their SAF online are strongly advised to complete this registration process at least two weeks before the closing date for the receipt of applications. Further information on how to register with the Government Gateway and access online services thereafter may be found at www.dardni.gov.uk/onlineservices

Verification of Applications

Administrative and on-farm checks are carried out to ensure applications have been completed correctly and that SFP eligibility rules have been satisfied. Penalties will be applied if scheme rules have not been met or discrepancies are identified.

On-farm Inspections

A minimum of 5% of claims received each year are subject to an on-farm inspection in order to (a) verify the details of the claim (including the usage and area of each field parcel) and (b) to confirm that scheme eligibility criteria have been met. There is also a requirement to carry out on-farm inspections on at least 1% of all claims received to verify compliance with Cross-Compliance standards (see below). In some cases, there is a higher inspection rate set by EU law, for example, in the area of Cattle Identification and Registration. Farm businesses selected for inspection are identified mainly using a risk analysis method with a smaller number chosen on a random basis. Complaints and referrals from members of the public and other Government Bodies will also be investigated.

Cross Compliance

To qualify for receipt of direct agricultural support, farmers are required to observe certain responsibilities towards the protection of the environment, animal, public and plant health and animal welfare throughout the scheme year. This is known as Cross Compliance which is comprised of two elements - Statutory Management Requirements (SMRs) and Good Agricultural and Environmental Conditions (GAEC).

Statutory Management Requirements are specific articles contained within 18 European regulatory requirements covering the environment, animal, public and plant health and animal welfare. They were phased in over three years beginning from 1 January 2005 and all SMRs are now in force
The Good Agricultural and Environmental Conditions were developed from a framework set out by the European Commission to address soil erosion, soil organic matter, soil structure and minimum level of maintenance. The GAECs fall into 7 measures; soil management, supplementary feeding, overgrazing, under grazing, field boundaries, protection of habitats, archaeological sites and permanent pasture and irrigation authorisations.

The Cross Compliance Standards are set out in a series of booklets available from the Department. In Northern Ireland, farm businesses' adherence to the Cross-Compliance requirements is checked by four Competent Control Authorities (see below). Each of these, with the exception of the Health and Safety Executive Northern Ireland (HSENI), is responsible for inspecting the Cross-Compliance standards that falls under its area of responsibility. HSENI inspections are undertaken by the Department of Agriculture and Rural Development.

1. Department of Agriculture and Rural Development (DARD)

- Good Agricultural and Environmental Condition Requirements (GAEC's);
- Feed and Food Law SMR

2.Northern Ireland Environment Agency (NIEA)

- Environmental SMR's

3. Health and Safety Executive Northern Ireland (HSENI)

- Safe use of pesticides SMR

4. Veterinary Service

- Animal Identification SMRs;
- Illegal hormone use SMR;
- Disease notification SMRs;
- Animal welfare SMRs.

Payments

The EU rules provide for full payments to be made between 1 December of the scheme year and 30 June of the following year. The Department aims to complete the vast majority of payments as early as possible within the seven-month payment window provided for in the EU regulations. The payment timetable for each scheme year is published in November.

The fixed exchange rate to be applied each year is the actual rate prevailing on 30 September. The exchange rate for the 2011 year was €1 = 0.86665. EU rules provide that direct aid payments can only be made direct to the applicant's bank account through the Bankers Automated Credit Services (BACS) system

Payment will normally be made in sterling. If an applicant wishes they can receive their payment in euro into a UK Euro bank account. An application for payment in euro must be made on the Single Application Form for the year in question.

From 2010 EU rules require a minimum payment level. In Northern Ireland the minimum payment level is €100. This means that if the total value of the Entitlements claimed is less than €100 no payment can be made.

Modulation

Modulation is the transfer of funds from farming subsidies to agri-environment and other rural development schemes. One type of modulation is applied on a compulsory basis at the same percentage rate in all EU Member States. An additional national (voluntary) rate of modulation is also applied in Northern Ireland. The rates of compulsory and voluntary modulation to be applied in 2012 are as follows.

Payments of	Compulsory Modulation rate	Voluntary Modulation rate	Total
Up to €5,000	0%	9%	**9%**
€5,000+ - €300,000	10%	4%	**14%**
€300,000+	14%	0%	**14%**

Penalties

There can be serious consequences for breaching scheme rules, including a reduction in the amount payable, the loss of the entire payment for the scheme year, the repayment of any subsidy already paid, and even exclusion from the scheme in future years. DARD does not have discretion to waive penalties, except in cases of force majeure/ exceptional circumstances or obvious error.

Circumstances when a penalty may be applied include:

- Late applications
- All land on the holding not declared (an under declaration)
- Ineligible land declared (an over declaration)
- fields duplicated with another farmer (an over declaration)
- cross-compliance requirements breached

However, if the applicant has provided the Department with factually correct information or can show that they were not at fault, the claim will be adjusted to the actual situation and a penalty will not be applied.

Changes to the SFP Scheme

This document constitutes only a brief summary of some of the main aspects of the SFP scheme and is not intended to replace the more detailed scheme guidance booklet or other related notifications from DARD. SFP applicants should, therefore, ensure they make themselves familiar with all current SFP guidance material, most particularly the “Guide on How to Complete your Single Application and Field Data Sheet”, which is issued along with the Single Application packs from mid-late March each year, as well as the “Guide to the Single Farm Payment Scheme” which is available on request from local DARD offices.

Further information and advice on the Single Farm Payment Scheme can be obtained from Single Farm Payment Branch. Contacts details are provided on page 122 - 123.

LESS FAVOURED AREA COMPENSATORY ALLOWANCES 2013

Less Favoured Area Compensatory Allowances (LFACA) is an annual subsidy scheme designed to contribute to the continuation of farming in the Less Favoured Areas (LFA) in Northern Ireland and thus to the maintenance of viable rural communities. As well as contributing towards the maintenance of the countryside it promotes the everyday use of good environmental practices complementary to maintaining sustainable farming.

Applicants have to maintain a minimum stocking density during a control period which for the 2013 scheme is 01 April 2012 to 31 October 2012 and must farm at least three hectares of eligible forage land (which may include a share of common land) lying within the LFA designation. There are comparable schemes in the rest of the UK and in other member states.

The minimum stocking density requirement of 0.2 livestock units per hectare comprising suckler cows, heifers, ewes, breeding female deer and breeding female goats must be maintained throughout the entire 7 month period 01 April - 31 October. To be eligible for the cattle bonus enhancement 25% of eligible livestock units must be suckler cows or heifers throughout the entire 7 month period 01 April - 31 October.

Those farm businesses eligible to apply will have submitted a 2012 Single Application Form and;

- Indicated in that form that they wished to apply for LFACA, and
- Completed LFACA information in that return

The payment rates in respect of 2013 LFACA are £47.62 per hectare for Severely Disadvantaged Land (SDA) and £23.81 per hectare for Disadvantaged Land (DA) and Common Land (CL).

AGRI-ENVIRONMENT SCHEMES

Agri-environment schemes reward farmers for environmentally sensitive land management. They are considered crucial in delivering Government's commitment to:

- Deliver on biodiversity;
- Mitigate climate change
- Enhance the landscape;
- Protect our heritage;
- Promote responsible management of farm nutrients.

There are currently approx 12,000 participants in the Environmentally Sensitive Areas (ESA) Scheme, Countryside Management Scheme (CMS) and Organic Farming Scheme (OFS), with 40% of the farmland area of Northern Ireland under agreement. The ESA scheme is closed for new applications but existing agreements will remain in place.

(A) Northern Ireland Countryside Management Scheme (NICMS)

The new Countryside Management Scheme, which replaces the existing Countryside Management Scheme and Environmentally Sensitive Areas Scheme, was launched in June 2008. 943 Scheme agreements commenced on 1 January 2009. A further 4800 applications were received in 2010. These applications were prioritised, based on environmental criteria, and approx 1000 applications will be progressed to agreement stage, with an agreement start date of 01 January 2012. A further 1300 will be progressed to agreement stage, with an agreement start date of 01 January 2013.

In order to maximise the environmental benefit from agri-environment scheme participants and provide a transitional arrangement between Rural Development Programmes approximately 1100 agreement holders, with a scheme end date between 01December 2011 and 31 December 2012 inclusive were offered the opportunity to extend their existing agreements to 30 June 2013. Approximately 75% of agreement holders took up this offer.

(B) Organic Farming Scheme (OFS)

The Organic Farming Scheme was introduced in 1999 to assist farmers converting from conventional production methods to organic production. A new Organic Farming Scheme has been developed, and opened for applications in September 2008, with 33 agreements commencing on 01 January 2009. A further 19 applications were received during the 2011 application period. Eligible applications will be processed to agreement stage, with agreement start date of 01 January 2012.

Applicants may enter parcels of land into five year agreements. The land must be registered with an approved Organic Sector Body and this Body ensures that farms approved as organic adhere to all the required standards.

Further information on agri-environment schemes may be obtained from any DARD office.

FORESTRY

(1) WOODLAND GRANT SCHEME

Grants are available under this scheme for the establishment, restocking and natural regeneration of broadleaved, conifer and mixed woodlands.

1.1 New Planting (Establishment Grant)

A minimum area of 0.2 hectares must be planted. Grants for new planting at the rates shown below are payable in 2 installments; 70% on completion of planting and the remaining 30% at year 5, subject to a final inspection.

SPECIES	GRANT (£/HA)
Conifer	1,600
Broadleaves	2,400

1.2 Restocking

Grants are payable in one installment on completion of planting as follows:-

SPECIES	GRANT (£/HA)
Conifer	400
Broadleaves	600

1.3 Natural Regeneration

A discretionary payment of 50% of the agreed initial costs is payable on completion of the approved work. Alternatively, a 'fixed payment', equivalent to the rate for restocking, is payable when the regeneration has been successfully established.

1.4 Community Woodland Supplement (CWS)

The purpose of this supplement is to encourage the creation of new woodlands close to towns and cities which will be of value for informal public recreation. Full public access is required. In addition to receiving the establishment grant, a supplement of £1,000 per hectare is payable as a lump sum once the initial planting is completed and the agreed facilities are in place.

1.5 Sustainable Forestry Operations Grant (SFOG)

SFOG is intended to help towards some of the cost of eligible investment work necessary in special woodlands of high environmental potential and to enhance social and environmental benefits. A grant of £50 per hectare is payable at the end of each year for an agreed 5 year plan. For areas of 5 hectares or less, SFOG will be payable in one installment at the end of the first year. The minimum area eligible is one hectare per application.

1.6 Woodland Environment Grant (WEG)

This is a discretionary payment, to assist work in existing woodlands requiring one-off remedial measures to secure significant environmental benefits through the enhancement of biodiversity or to improve the public amenity of woodlands. A grant of up to 50% of the cost of the agreed operations and not

exceeding £3000 is payable on completion of all work. The minimum area eligible is one hectare per application.

1.7 Short Rotation Coppice (SRC)

Support for the planting of SRC crops, for renewable energy purposes, is available and will be considered in the context of development of the renewable energy market in Northern Ireland. The provision of support will be at the discretion of the Forest Service, and a number of conditions apply.

The maximum rate of grant for establishment of SRC is £1000/ha.

Grant will normally be paid in two installments, 70% on completion of planting, and the remaining 30% after the plantation has been cut back and residual herbicide applied.

The minimum qualifying area for SRC is 3.0 hectares.

SRC will not qualify for either restocking or natural regeneration grants, nor for Farm Woodland Premium Scheme payments.

(2) FARM WOODLAND PREMIUM SCHEME (FWPS)

This is designed to encourage the establishment of new woodland on farms by providing an annual payment to farmers to compensate for income forgone. Payments are made for 10 or 15 years depending on the type of woodland.

Entry to the scheme will only be possible if the planting proposed for the new woodland is eligible under the Woodland Grant Scheme.

Payment rates (£/hectare/year)

Applicant	Category of land	Outside LFA	LFA – Disadvantaged Areas	LFA – Severely Disadvantaged Areas
Farmer	**Arable and other improved land**	**290**	**240**	**200**
Non-farmer	**Arable and other improved land**	**100**	**100**	**100**
Farmer/ Non-farmer	**Unimproved land**	**Ineligible**	**90**	**60**

Woodlands in the landscape

All new planting grant schemes must be designed to ensure that they will not have an adverse effect on the environment, e.g. because of size, nature or

location. Each application will be assessed as to its likely impact before being approved.

Further Details

Further details of all forestry grant schemes are available from **Afforestation and Plant Health Branch, Room 26, Dundonald House, Upper Newtownards Road, Belfast, BT4 3SB, tel. 028 90 765391** or by emailing grants.forestservice@dardni.gov.uk**.** These details are also available online at **www.forestserviceni.gov.uk**

Nitrates and Phosphorus Regulations

The Nitrates Action Programme Regulations (Northern Ireland) 2010 and the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 2006 bring into operation measures to improve the use of these nutrients on farms and reduce their input to Northern Ireland's water environment from agricultural sources.

The Nitrates Action Programme (NAP). Regulations meet Northern Ireland's legal and environmental obligations and the Phosphorus Regulations support the Action Programme Measures. Both sets of Regulations apply to all agricultural land in Northern Ireland.

The Nitrates Action Programme has to be reviewed and, where necessary, revised, at least every four years. This process was carried out in 2010 and a revised action programme has now been set out in the Nitrates Action Programme Regulations (Northern Ireland) 2010 (2010 NAP Regulations) which update and replace the 2006 NAP Regulations.

The following is a summary of the Nitrates Action Programme and the Phosphorus Regulations:

1. Closed Spreading Periods

- Chemical Nitrogen fertiliser must not be applied from midnight 15 September to midnight 31 January.
- Organic manures, including slurry, poultry litter, sewage sludge and abattoir waste, must not be applied from midnight 15 October to midnight 31 January.
- Farmyard manure (FYM) must not be applied from midnight 31 October to midnight 31 January.
- There is no closed spreading period for dirty water.
- Land application restrictions listed below apply to spreading of all fertilisers, including dirty water

2. Land Application Restrictions

- All fertilisers, chemical and organic, must not be applied:
  - on waterlogged soils, flooded land or land liable to flood;
  - on frozen ground or snow covered ground;
  - if heavy rain is forecast in the next 48 hours;
  - on steep slopes that is an average incline of 20% or more on grassland or an average incline of 15% or more on all other land) where other significant risks of water pollution exist. Risk factors to be considered include the proximity to waterways, the time to incorporation, the type and amount of fertiliser being applied and / or the soil and weather conditions.
- Prevent entry of fertilisers to waters and ensure application is accurate, uniform and not in a location or manner likely to cause entry to waters.
- Chemical fertilisers must not be applied within 2m of any waterway.
- Organic manures including dirty water must not be applied within:
  - 20m of lakes;

- 50m of a borehole, spring or well;
- 250m of a borehole used for a public water supply;
- 15m of exposed cavernous or karstified limestone features;
- 10m of a waterway other than lakes; This distance may be reduced to 3m where slope is less than 10% towards the waterway and where organic manures are spread by bandspreaders, trailing shoe, trailing hose or soil injection or where adjoining area is less than 1 hectare in size or not more than 50m in width

- Application rates:
  - No more than $50m^3$/ha (4500 gal/ac) or 50 tonnes/ha (20t/ac) of organic manures to be applied at one time, with a minimum of three weeks between applications;
  - No more than $50m^3$/ha (4500 gal/ac) of dirty water to be applied at one time, with a minimum of two weeks between applications.

- Slurry can only be spread by inverted splashplate, bandspreaders, trailing shoe, trailing hose or soil injection.
- Dirty water to be spread by same methods as slurry and by irrigation.
- Sludgigators must not be used.

3. Nitrogen (N) Fertiliser Application Limits

	Maximum kg N/ha/year on grassland
Dairy farms*	272 (8 1/4 bags/ac)
Other farms	222 (6 3/4 bags/ac)

(N from organic manures other than livestock manure must be subtracted)

*More than 50% of N in livestock manure comes from dairy cattle
** Approximate number of 50kg bags of a 27% N type fertiliser

- For non-grassland crops, the crop requirement as determined by the latest edition of RB209, must not be exceeded.

4. Chemical Phosphorus Fertiliser

- Can only apply chemical fertiliser containing phosphorus if soil analysis shows a crop requirement as determined by the latest edition of RB209.

5. Livestock Manure Nitrogen Limits

- 170kgN/ha/year farm limit.
- Farms with at least 80% grassland may apply annually by 1 March to NIEA for a derogation to permit application of up to 250kgN/ha/year of grazing livestock manure. Additional conditions and Cross-Compliance verifiable standards will apply. Further guidance is available from NIEA.

6. Livestock Manure and Silage Effluent Storage Requirements

- 26 weeks livestock manure storage capacity for pig and poultry enterprises. 22 weeks for other enterprises.
- Provided certain criteria are met there are allowances for out-wintering, animals in bedded accommodation, separated cattle slurry, renting additional tanks, poultry litter stored in a midden or field heap and exporting slurry to approved outlets.
- Livestock manure and silage effluent storage must be maintained and managed to prevent seepage run-off
- New or substantially enlarged or reconstructed stores must comply with Silage, Slurry and Agricultural Fuel Oil (SSAFO) (Northern Ireland) Regulations, 2003.
- FYM storage:
    - FYM may be stored in middens with adequate effluent collection facilities.
    - Until 31 December 2012, FYM may be stored in field heaps where it is to be applied but for no longer than 180 days. After that date such FYM field heaps are permitted but for no longer than 120 days. FYM field heaps must not be located on land that is waterlogged, flooded or likely to flood.
- Poultry litter storage
    - Poultry litter may be stored in middens with adequate effluent collection facilities.
    - The current NAP Regulations allow storage of poultry litter in field heaps to continue until 31 March 2012. Research on the impact of poultry litter field heaps on water quality has been carried out by the AgriFood & Biosciences Institute (AFBI). A report has been submitted to the EU Commission and continuation of storage of poultry litter in field heaps after the 31 March 2012 will be reviewed when the Commission response to the report is received.
    - Poultry litter may only be stored in field heaps for a maximum of 180 days in the field where it is to be applied and must be covered with an impermeable membrane within 24 hours of placement in the field.
- FYM and poultry litter field heaps must not be stored:
    - in the same location of the field year after year;
    - within 50m of lakes;
    - within 20m of a waterway;
    - within 50m of a borehole, spring or well;
    - within 250m of a borehole used for a public water supply;
    - within 50m of exposed cavernous or karstified limestone features.
- Provide sufficient storage for dirty water for periods when conditions for land application are unsuitable

7. Land Management

- Crop and soil management to minimise soil erosion and nutrient run off.

8. Record Keeping

- Agricultural area, field size and location
- Cropping regimes and areas, Soil Nitrogen Supply (SNS) index for crops other than grassland.
- Livestock numbers, type, species and time kept.
- Organic and chemical fertiliser details including imports and exports.
- Evidence of a Phosphorus requirement if chemical Phosphorus fertiliser sown.
- Storage capacity and where applicable associated evidence to support allowances to reduce capacity
- Evidence of control over the agricultural area and the right to graze common land.

Many of these records already exist on farms, for example, SAF / IACS form, farm maps, herd and flock records and fertiliser receipts.

- Records to be ready by 30 June each year for period 1 January to 30 December of previous year.
- Records to be retained for inspection from previous five calendar years.
- If you operating under an approved derogation, you must keep your fertilisation plan on farm and ready for inspection by 1 March for that calendar year. Your fertilisation account for the previous calendar year must be received by NIEA by 1 March.

Full details of all Measures can be found in the NAP Guidance Document 2011 - 2014 and Workbook that can be accessed online at www.dardni.gov.uk and www.ni-environment.gov.uk

Further information and advice on these Nitrates and Phosphorous Regulations can be obtained from the local DARD offices or Northern Ireland Environment Agency. Contacts details are provided on pages 122 &125.

AVERAGE FERTILISER PRICES 2011

		£ per tonne
C.A.N (27% N)		286
Urea (46% N)		335
Cereal fertiliser	18.14.14	363
	16.16.16	381
	15.15.17	367
Grassland fertiliser	20.10.10	353
	27.5.5	353
	27.4.4	340
	25.5.5	334
	25.0.5	292
	26.0.6	335
Silage fertiliser	24.6.12	371
	22.4.14	355
	25.0.13	353
Ground limestone	(Collected)	11
	(Delivered and spread)	17

(1) All prices refer to the average net retail price charged to Northern Ireland farmers in the period January-October 2011.

(2) Figures used in the budgets in this publication are based on anticipated prices for 2012.

FEEDINGSTUFF PRICES AT OCTOBER 2011

	% protein	£ per tonne
Dairy nuts	18	240
	20	250
Calf milk replacer (bags)	22	1820
Calf starter/weaner meal	18	260
Calf rearing nuts	17	245
Cattle fattening nuts	16	225
Cattle concentrate	30	245
Sheep feed (bulk)	18	235
(bags)	18	260
Lamb feed	16	235
Pig creep pellets (bulk)	20	570
(bags)	20	590
Pig link/early grower	21	375
Pig grower/rearer meal	20	320
Pig fattening meal	19	300
Sow meal	18	290
Barley meal		180
Maize meal		205
Soya bean meal		270
Whole wheat		170
Whole Barley		170

(1)The prices quoted above are for bulk purchase except where stated.

(2) Figures used for the budgets in this publication are based on anticipated prices for 2012.

RELATIVE FEED VALUES

These relative feed values are calculated using unit costs for metabolisable energy and crude protein derived from the reference feedstuffs of barley and soya. The value of the rumen degradable protein (if applied) is allowed for by calculating a unit cost based on the price of urea. If a particular feedstuff price is lower than the relative value then it is a 'good buy' and vice versa. Two feedstuffs may be compared with each other in terms of the differences between the price of each foodstuff and its relative value.

CAUTIONS

These relative values are only a guide:-

(1) They are based on average analysis; actual samples may differ from the averages used.

(2) The unit values for metabolisable energy and crude protein depend on the balance of nutrients in the reference feedstuff. Barley and soya have been chosen as the most appropriate; other reference feedstuffs would give different answers.

(3) The real unit values of metabolisable energy and crude protein depend on the feeding situation and not entirely on the feedstuffs. For example, undegradable protein has a low value for mature growing cattle but a high value for fast growing young stock.

(4) Energy density is also an important consideration, i.e. straw may be a 'good buy' compared with flaked maize, but would be entirely unsuitable for high yielding dairy cows.

Relative feed values therefore only give a crude guide to feedstuff values.

Feed	Relative Value
Barley	100.00
Wheat	103.80
Hipro soya	170.00
Maize	105.60
Oats	92.10
Urea	185.00
Grass	25.00
Hay (Good)	63.75
Hay (Average)	56.25
Silage (Good)	24.10
Silage (Average)	22.47
Barley straw	35.00
Maize gluten meal	184.30
Maize gluten feed	113.00
Herring fish meal	213.50

Feed	Relative Value
Linseed meal	129.00
Rapeseed meal	125.90
Soya bean meal 44	141.80
Potatoes	23.10
Molasses	73.90
Dried molassed sugar beet pulp	101.00
Brewers' grains	27.90

ENTERPRISE MARGINAL CAPITAL REQUIREMENTS (EMCR)

(a) Arable Enterprises

	EMCR £ per hectare
Spring barley (6 months)	383
Spring oats (6 months)	344
Winter barley (10 months)	486
Winter oats (10 months)	423
Winter wheat (10 months)	564
Spring oilseed rape (6 months)	368
Winter oilseed rape (10 months)	482
Seed potatoes (6 months)	1,587
First early potatoes (6 months)	1,502
Maincrop ware potatoes (6 months)	1,645

(b) Livestock Enterprises

	Initial Capital (1) (£)	Variable Costs per livestock place (2) (£)	Total EMCR per livestock place (3) (£)
Dairy cows (1 month)	1400	55 – 74	1455 – 1474
Dairy heifer replacements	250	499 – 580	749 – 830
18 month heifer beef	230	457	687
22 month steer beef	280	474	754
24 month steer beef	280	511	791
28 month steer beef	280	544	824
Cereal bull beef	115	594	709
Grass silage bull beef	280	673	953
Calf to store system	280	315	595
Lowland suckler cows - May calving	1150	339	1489
- Feb calving	1150	265	1415
- Oct calving	1150	359	1509
Hill suckler cows	1000	220	1220
Beef heifer replacements	260	420	680
Finishing suckled calves	517	418	935
Winter cattle finishing 400kg (230 days)	760	316	1076
Winter cattle finishing 500kg (150 days)	925	218	1143
Summer cattle finishing 420kg (180 days)	819	57	876
Traditional store to beef system (12 mths)	684	224	908
Summer grazing of store cattle (6 mths)	600	51	651
Lowland breeding ewes - March lambing	120	48	168
Lowland breeding ewes - Dec lambing	120	66	186
Upland breeding ewes	120	50	170
Hill breeding ewes	120	42	162
Store lamb finishing (3-5 mths)	55 – 62	5 – 22	67 – 80

	Initial Capital	Variable Costs Livestock per place	Total EMCR Livestock per place
	(1) (£)	(2) (£)	(3) (£)
Pig rearing (per sow) (5mths)	140	358	498
Pig finishing (per pig) (3 mths)	43	50	93
Pig rearing/finishing (per sow) (6 mths)	140	1010	1150
Horses – half bred mares	3000	1495	4495
Deer – Hinds	200	86	286

(1) For livestock enterprises the initial capital is the purchase price of the animal.

(2) The variable costs quoted for a livestock enterprise are the total variable costs invested in the enterprise until the point of first sale. In the case of a dairy cow this represents one month's variable costs. Details of total variable costs for each enterprise can be found under the appropriate enterprise gross margin budget.

Fixed costs (excluding labour)
By type of farm business 2010/2011[1]

Dairy Farms	Very Small	Small	Medium	Large
Area farmed (hectares)[2]	32	45	68	132
		£'s per Ha		
Conacre rent	40	40	70	113
Depreciation of buildings/work	58	143	213	236
Depreciation of machinery	94	148	156	174
Machinery running costs	170	189	157	170
Electricity and heating fuels	50	47	46	55
Building repairs	55	52	75	69
Misc. (inc. farm rates)	89	78	64	53
Total	**556**	**696**	**781**	**870**

Cattle and Sheep Farms	SDA	DA	LFA	Non-LFA
Area farmed (hectares)[2]	108	63	91	63
		£'s per Ha		
Conacre rent	24	22	24	61
Depreciation of buildings/work	39	91	53	76
Depreciation of machinery	66	119	80	135
Machinery running costs	73	124	86	124
Electricity and heating fuels	5	11	7	15
Building repairs	26	54	33	37
Misc. (inc. farm rates)	23	51	31	52
Total	**257**	**471**	**313**	**500**

Other Farm Types	Cereals	General Cropping	Mixed	Pigs
Area farmed (hectares)[(2)]	71	42	60	6
		£'s per Ha		£'s per £100 output
Conacre rent	51	232	96	0
Depreciation of buildings/work	25	71	70	3
Depreciation of machinery	178	411	306	3
Machinery running costs	147	287	311	2
Electricity and heating fuels	12	24	38	2
Building repairs	37	65	57	2
Misc. (inc. farm rates)	50	60	64	2
Total	**499**	**1150**	**942**	**14**

(1) Farm types

Dairying	Farms with more than two-thirds of total Standard Gross Margin (SGM) from dairying (including associated young stock).
Cattle and Sheep	Farms which do not qualify as Dairy farms but have more than two-thirds of total SGM from cattle and sheep.
Cereals	Farms with more than two-thirds of total SGM from cereals, oilseeds and set-aside.
General cropping	Farms which do not qualify as Cereal farms but have more than two-thirds of total SGM from arable crops (including field scale vegetables) or in a mixture of arable and horticultural crops.
Mixed	Farms where crops account for one third, but less than two thirds of total SGM and livestock for one third, but less than two thirds of total SGM.
Pigs	Farms with more than two-thirds of total SGM from pigs.

(2) Area farmed has been adjusted for conacre taken or let. Planning for 2012 should take account of any anticipated changes in fixed costs. As the levels of fixed costs per hectare differ considerably between farms, the data quoted above should be treated with caution. Since the composition of the labour force between family and hired workers is so variable between farms, no attempt has been made to produce data for comparison.

ANNUAL TRACTOR COSTS - Estimates for 2012

	4-Wheel drive						2-Wheel drive			
Horse power	120		100		80		90		80	
Initial Cost (£)	45,000		35,000		30,000		27,000		25,000	
	Per year	Per hour	Per year	Per hour	Per year	Per hour	Per year	Per hour	Per year	Per hour
Repairs	1,800	3.6	1,400	2.8	1,200	2.40	1,080	2.16	1,000	2
Depreciation (average charge)	3,840	7.68	2,990	5.98	2,560	5.12	2,310	4.62	2,130	4.26
Insurance	875	1.75	780	1.56	730	1.46	710	1.42	670	1.34
Fuel & Oil	5,525	11.05	4,875	9.75	3,900	7.80	4,550	9.10	3,575	7.15
TOTAL	12,040	24.08	10,045	20.09	8,390	16.78	8,650	17.30	7,375	14.75

(1) Initial cost based on purchase price.

(2) Based on annual use of 500 hours. Higher annual use will result in higher annual, but lower hourly costs. Heavy operations, e.g. slurry mixing, will result in a greater cost than light work.

(3) Annual repair costs have been estimated using 4% of the initial cost.

(4) Depreciation has been calculated by reducing balance method, using 15% depreciation and a life of 9 years.

(5) Insurance costs are for comprehensive cover with up to 5% contracting. Costs will also depend on excesses, claims history and the need for cover on implements

(6) Fuel has been costed at 65 pence per litre.

(7) No interest or leasing charges have been included.

NEW MACHINERY PRICES

Tractors	(See Page 99)		
	£		£
Pick-up	12,000 - 25,000	Plough	6,000 - 25,000
Quad (4WD Bike)	4,500 - 7,500	Harrow	1,500 - 2,000
Telescopic Loader	45,000 - 65,000	Power harrow	5,500 - 15,000
Skid-steer loader	15,000 - 25,000	Land roller	1,200 - 2,000
Slurry tanker	6,000 - 25,000	Land leveller	500 - 2,000
Slurry pump	2,500 - 5,500	Fertiliser sower	2,000 - 8,000
Manure rotaspreader	3,500 - 20,000	Crop sprayer	2,000 - 20,000
Yard scraper	500 - 1,000	Potato harvester	35,000 - 85,000
Mower conditioner	5,000 - 20,000	Box tipper	2,500 - 8,000
Precision chop harvester	15,000 - 35,000	Cattle trailer	3,000 - 6,000
Silage trailer	4,500 - 13,000	Link box	500 - 900
Buckrake	1,500 - 6,000	Welder	250 - 1,300
Bale spike	200 - 450	Compressor	200 - 1,000
Grass topper	1,000 - 3,200	Generator	600 - 2,000
Sheargrab	2,000 - 3,500	Power washer	200 - 2,000
Tractor loader	4,500 - 8,000	Hedge cutter	5,500 - 30,000
Silage feeding trailer	1,200 - 2,500	Chain saw	200 - 900
Diet feeder wagon	15,000 - 35,000	Bulk meal bin	1,800 - 3,700

AGRICULTURAL CONTRACTORS' CHARGES

	Cost (£)	
1. Cultivations		
Ploughing - Lea	70 to 90	per hectare
- Stubble and other	70 to 80	"
Discing	25 to 30	per hour
Chain harrowing	20 to 25	"
Power harrowing	30 to 45	per hectare **or**
	30	per hour
Ground driven rotary harrowing	20	"
Springtine harrowing	20 to 25	"
Rotavating - Large types 100"	40 to 50	per hectare **or**
	30 to 40	per hour
Land Levelling	25	per hour
Rolling - Light	15 to 22	per hectare
- Heavy	18 to 25	"
Reseeding (Complete operation not including seed/fertiliser)	290 to 370	"
Shakerator	20 to 35	per hour
2. Seeding and Planting		
- combined drilling	25 to 30	per hectare
- precision seeding	45 to 60	"
- potato planting (automatic)	25 to 35	per hour
- direct drilling	44 to 55	per hectare
- one pass cultivation and drilling	50 to 65	"
- destoning	250 to 350	"
3. Spraying and Spreading		
Crop spraying (excluding chemicals)	25 to 40	per hectare
Fertiliser	15 to 25	per tonne
	10 to 15	per hectare
	20 to 30	per hour
Lime spreading	16 to 20	per tonne
Farmyard Manure		
- Entire operation	40 to 55	per hour
Slurry spreading (1,100-1,500) gallon tanker	20 to 30	"
Slurry spreading (2,000 gallon tanker)	25 to 40	"
Slurry spreading (self-propelled tanker)	40 to 55	"
Slurry Spreading (umbilical system)	60 to 85	"
Slurry Spreading (umbilical system)	5 to 8	per 1000 gallons
Pumping and agitating (tanks)	25 to 35	per hour

	Cost (£)	
4. Harvesting		
Forage, including harvester, tractor and trailer		
- precision (complete operation)	150 to 190	per hectare
- precision (without buckraking)	125 to 160	"
- double chop (complete operation)	120 to 150	"
Buckraking into silo	20 to 30	"
Additional tractor and trailer for haulage	25 to 40	per hectare **or**
	25 to 35	per hour
Mowing hay or grass (conventional)	25 to 45	per hectare
Mowing hay or grass (Conditioner/auto swather)	25 to 45	per hectare
Topping grass	20 to 35	per hectare
Tedding, turning or raking	14 to 18	"
Pick-up baling - including twine	0.40 to 0.60	per small bale
- excluding twine	0.22 to 0.30	"
Big bale silage - round, chop, net and wrap	7 to 8	per bale
Big bale straw	3.00 to 3.50	"
Combine harvesting	90 to 110	per hectare
Potato harvesting (ground destoned)	280 to 320	per hectare
Forage Maize harvesting (complete operation)	180 to 220	per hectare
5. Grain Drying and rolling		
Drying - Handling charge	2	per tonne
per 1% moisture removed,	3 to 4	"
Rolling	19 to 22	

	Cost (£)	
6. Ditching and Field Drainage		
Wheeled digger - bucket type	20 to 30	per hour
Tracked digger	25 to 40	"
Bulldozing	60 to 90	"
Opening field drains only	0.7-0.8	per metre
Laying drains (excluding stones)	0.80 to 1.00	"
Mole draining	100 to 120	per hectare
Laying water piping	18 to 25	per hour
Subsoiling	22	"
Stoner	18 to 25	"
7. Miscellaneous		
Hedge cutting - flail	25 to 35	per hour
- saw	30 to 40	"
Flail Heather/Rushes	30 to 50	
Sawing logs - chainsaw	12 to 14	"
Haulage - tractor and trailer (higher prices for larger tractors and 4WD)	25 to 40	per hour
Relief milking - typical (largely dependent on size of herd and milking system)		
Monday-Saturday	40 to 70	per milking
Sunday	65 to 110	"
Hoof paring		
Call out fee (includes first 3 cows)	60	per call
Additional cows	10	per cow
Sheep shearing	1.30 to 1.60	per ewe
Sheep scanning	0.50 to 0.80	per ewe
Fencing: assume strainers max 30m apart, and double strainers on corners		
5 rows of barbed wire		
- total cost	4.25 to 5.00	per metre
- labour only	1.20 to 1.70	"
Sheep fence plus 3 lines of barbed wire		
- total cost	4.50 to 6.00	per metre
- labour only	1.50 to 2.20	"

These contract charges are considered to be reasonable for operations carried out in normal circumstances. The rates include fuel, oil lubricant and operator's wages. Prices will differ from one district to another and will be affected by the contracted area. If a farmer supplies fuel, the price may be lower. The charges may be subject to VAT.

TYPICAL HIRE CHARGES

	Capacity	Per Day (£)	Per Week (£)
Quad		40	175
Plough		75	375
Plough (reversible)		100	500
Chain harrow		40	200
Power harrow (3m plus blades)		90	450
Rotavator (plus blades)		100	500
Land roller		30	150
Fertiliser sower		20 to 25	100
Crop sprayer		40	200
Lagoon mixer		25	70
Slurry pump		40	200
Rotary spreader	7.3 cu yard	100	500
Slurry tanker	2250 gall	70	375
"	1300 gall	50 to 70	200 to 300
"	1100 gall	50 to 70	200 to 300
Bale lifter		12	30
Telescopic handler	13m	100	425
Rough terrain forklifts	3t	50	175
Single axle dump trailer	8t	30	120
Twin axle dump trailer	10t	35 to 50	160
Tractor	80hp		300
Tractor (4wd)	100hp	80	350 to 450
Mini digger	3t	105	440
Strimmer	40cc	15 to 17	35
Chain saw		30 to 40	100 to 150
Welder (diesel)	350 amp	50	200
Generator diesel	5kw	25	60
"	10kw	35	150
Power washer	3000 si	45 to 50	100
"	1500 psi	20 to 30	60
Steam washers		30	80
Compressor/Jack hammers	100 ctm	25 to 30	75
Round bale trailer		25 to 30	90
Yard sweeper		50	-
Silage trailer	6t	25 to 40	100 to 120
Post driver		40	200
Low loader		40	200
Grasseed sower		40	175
Weed wiper		40	175
Grass topper		55	250
Rush topper		75	375
Spiker		45	200

1.) Prices do not include VAT.
2.) Prices listed above are intended for guidance only, considerable variation may be expected.

AMORTIZATION TABLE

Annual charge to write off £1,000, repayment includes capital and interest assuming payment by one annual instalment

Write off period (years)	Rate of interest %															
Year	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
5	231	237	244	250	257	264	271	278	284	291	299	305	313	320	327	334
6	197	203	210	216	223	230	237	243	250	257	265	271	279	286	293	301
7	173	179	186	192	199	205	212	219	226	233	240	248	255	262	270	278
8	155	161	167	174	181	187	194	202	208	216	223	230	238	245	253	261
10	130	136	142	149	156	163	170	177	184	192	200	207	215	223	231	239
12	113	119	126	133	140	147	154	162	169	177	185	192	201	209	217	226
15	96	103	110	117	124	132	139	147	155	163	171	179	188	196	205	214
20	80	87	94	102	110	118	126	134	142	151	160	168	178	187	196	205
25	71	78	86	94	102	110	119	128	136	146	155	164	173	183	193	202
30	65	73	81	89	97	106	113	124	133	143	153	161	172	181	191	202
40	58	66	75	84	93	102	111	121	131	141	150	160	170	180	190	200

Example : £10,000 is borrowed. (The equivalent annual cost factor at 8% over 8 years is £174 per £1,000) Therefore, the annual service charge to service interest and capital repayment on the £10,000, repayable over 8 years is 10 x £174 = £1,740

LOAN OUTSTANDING

Amount outstanding on a 10 year loan of £1000 at the end of each year

	Rate of interest %															
Year	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
1	920	924	928	931	934	937	940	943	946	948	951	954	957	960	963	966
2	836	843	850	856	862	868	874	879	884	889	894	900	905	910	916	922
3	747	758	768	776	784	792	800	808	815	822	829	836	844	852	860	867
4	655	667	680	689	699	709	718	728	737	746	754	763	772	782	792	801
5	558	571	585	595	606	617	628	638	648	658	668	678	688	698	708	718
6	456	469	484	494	505	516	527	538	548	559	569	580	591	601	611	622
7	348	362	376	384	395	405	415	425	435	445	455	465	476	486	496	506
8	236	247	261	266	274	283	291	299	307	316	324	333	341	350	358	367
9	117	126	137	138	143	148	153	158	163	168	173	178	183	188	193	198

The annual charge to write-off the loan must first be calculated.
The equivalent annual cost factor at 8% over 10 years = £149. At the end of the first year the amount to repay, at 8% interest, will equal £1,080. When the annual charge of £149 is deducted, the amount outstanding on the loan is £1,080 - £149 = £931.

INTEREST RATES - ANNUAL PERCENTAGE RATE (APR)

It is important to distinguish between nominal rates which are often quoted by lending institutions and true rates of interest. The Annual Percentage Rate (APR) allows for the fact that interest is usually charged at less than annual intervals, and hence an element of compounding will occur, i.e. interest will be charged on the accumulated interest. The higher the annual nominal interest rate and the more frequently the interest charges are applied to the loan, the more pronounced will this compounding be and the higher the APR.

Loans from all sources should be converted to APR, which shows the effective rate of interest calculated on an annual basis. This allows a true comparison to be made between different sources of borrowed finance.

The approximate annual percentage rate is given by:

$$\left[\left(1+\frac{n}{p}\right)^{p}-1\right]\times 100$$

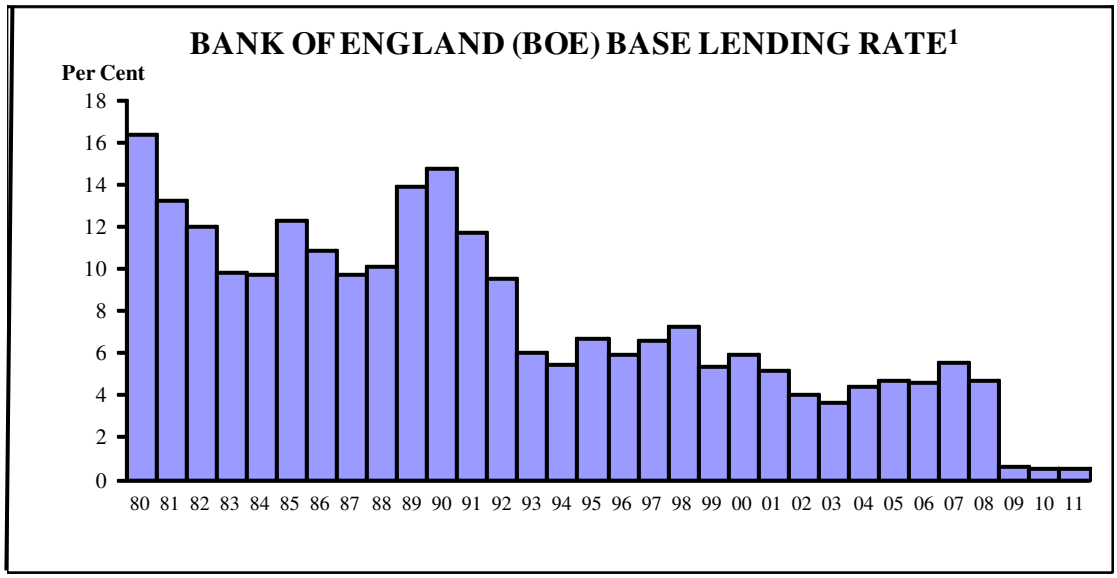
where n = nominal interest rate expressed as a decimal
p = number of instalments per year

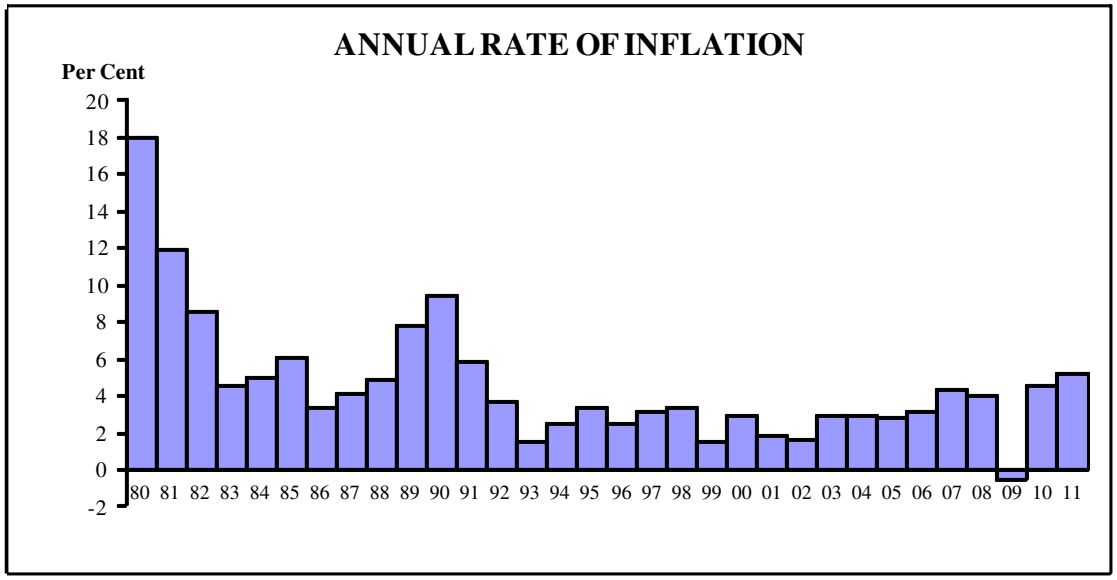
example : A nominal interest rate of 14% with monthly charging gives an approximate annual percentage rate of 14.9%

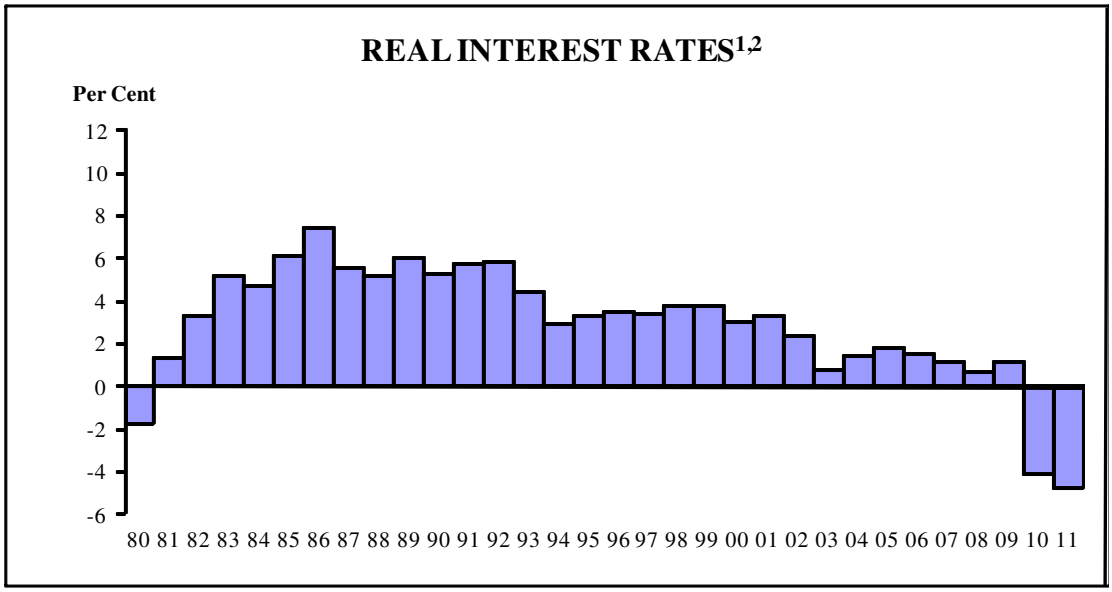
REAL INTEREST RATES

When preparing budgets to estimate the viability of an investment, it is common to include costs and returns at present day values, even though these may be expected to rise due to inflation over the life of the investment. Where this real terms approach is adopted, a more realistic estimate of the effect on profitability can be gained by basing capital charges on the real rate of interest rather than the APR. On the other hand it is important to remember that all costs and returns may not increase or, indeed decrease at the same rate. Also some allowance should be made in decision making for possible changes in inflation rates. Often in times of rising or falling inflation, nominal interest rates will rise or fall. This will clearly have consequences for cash flow.

The real rate of interest is the APR adjusted for the annual rate at which costs and prices relating to the investment are expected to increase. A crude estimate of the real rate of interest may be made by subtracting the expected inflation rate from the APR (see figure overleaf).







1. Acutal commercial lending rates applied depend on various factors such as loan term and risk.

2. Calculated as the difference between Bank of England base rate and annual rate of inflation

AGRICULTURAL WAGES (REGULATION) (NORTHERN IRELAND) ORDER 2012

The Agricultural Wages Board for Northern Ireland by Order No. 92, which comes into operation on 6th April 2012, provides revised rates for minimum agricultural wages. This Order replaces Order No. 91 which was operative from 4th April 2011. Under this minimum wage system, advancement is conditional on a workers experience and qualifications.

Minimum wage rate

The minimum wage rates (£ per hour) - effective from 6th April 2012 for grades 1 – 6 workers are as follows:

Grade	Rate per Hour £
Grade 1-Minimum Rate (Applicable for first 40 weeks cumulative employment)	6.23
Grade 2-Standard Worker	6.52
Grade 3-Lead Worker	7.16
Grade 4-Craft Grade	7.69
Grade 5-Supervisory Grade	8.15
Grade 6-Farm Management Grade	8.81

Where at any time the National Minimum Wage (NMW) becomes higher than the hourly rates set out above, then the minimum rates shall be equal to the National Minimum Wage. The NMW rate is set on the 1st October each year.

The definitions for the grades and the qualifications required for each grade are available at: http://www.dardni.gov.uk/enforcement-awb

Overtime

The minimum overtime rates (£ per hour) effective from 6th April 2012 are as follows:

Grade	Rate per Hour £
Grade 1-Minimum Rate (Applicable for first 40 weeks cumulative employment)	9.34
Grade 2-Standard Worker	9.78
Grade 3-Lead Worker	10.74
Grade 4-Craft Grade	11.54
Grade 5-Supervisory Grade	12.22
Grade 6-Farm Management Grade	13.22

For the purpose of this Order, the following employment is defined as the employment which is to be treated as overtime employment:-

(a) employment in excess of 39 hours in any week for a whole-time worker.

(b) employment on a day on which a worker is entitled to be allowed a holiday in accordance with the holiday provisions of the Order.

Holiday Entitlements

Full time Agricultural workers in the first year of continuous employment with the same employer are entitled to 28 days holidays. Holiday entitlement is proportionate to the number of days worked as detailed below:

- works 1 day per week = 6 days holiday;
- works 2 days per week = 11.5 days holiday;
- works 3 days per week = 17 days holiday;
- works 4 days per week = 22.5 days holiday; and
- works 5 days per week = 28 days holiday.

An agricultural worker who has been in continuous employment with the same employer for **more than** 52 weeks is entitled to one additional day's holiday in every holiday year from those dates listed in Agricultural Wages legislation. For example an employee working a 5 day week the total holiday entitlement is 29 days made up of 28 days holiday leave and the 1 additional day. This holiday entitlement is proportionate to the number of days worked.

The rate of holiday remuneration must not be less than the minimum wage rate set out above.

Accommodation Offset

For all workers employed in agriculture prior to 6th April 2009 (excluding Temporary and Harvest workers), a house or other accommodation provided by the employer may (with the consent of the worker) be reckoned as payment of wages in lieu of payment in cash to the maximum of £1.50 per week.

For all workers commencing work in agriculture for the first time from 6th April 2009, a house or other accommodation provided by the employer may (with the consent of the worker) be reckoned as payment of wages in lieu of payment in cash to the maximum of £31.22 per week.

Further information on Agricultural Wages Board Orders or matters relating to Agricultural Wages is available from: The Secretary, Agricultural Wages Board, Room 916, Dundonald House, Upper Newtownards Road, Belfast, BT4 3SB or telephone: 028 9052 0813.

ALTERNATIVE ENTERPRISES

A wide range of alternative enterprises is found on individual farms in Northern Ireland. Some of these developments are relatively new, while others are simply being more widely publicised. Such enterprises may be seen to be attractive; however, they should not be undertaken without a considerable amount of research. Substantial capital may be required and new skills in production and marketing may have to be acquired. With alternative enterprises there is often a high level of risk and the potential market outlets should be thoroughly investigated before production is started.

The main groups of alternative enterprises are agricultural contracting; tourism and recreation (bed and breakfast, open farms, horse breeding); value-adding enterprises (on-farm processing, farm shops and stalls); unconventional agricultural enterprises (Christmas trees, amenity turf, game birds, ostriches, rabbits, snails, goats' and sheeps' milk); ancillary resources (letting buildings for non-agricultural use, forestry); and the production of environmental goods in return for government grants.

Information and advice on alternative enterprises can be obtained from Rural Enterprise Advisors who can be contacted through your local DARD office.

ORGANIC FARMING

Organic farming aims to produce high quality food using sustainable methods of production and avoids the use of artificial fertilisers and chemicals which minimises damage to the environment and wildlife. Organic produce must comply with organic food standards and, in general, there is a minimum two year conversion period from non-organic methods.

It is difficult to be specific about the margins from organic farming. There is a specific market (that should be identified before production is commenced) and it is possible to obtain a premium for organically produced food. However, any premium can, at least in part, be offset by lower yields.

Details of financial assistance for Organic Farming are provided on page 91. Advice on Organic farming is also available from your local DARD advisors who can be contacted through your local DARD office.

LIVESTOCK WELFARE

Animal welfare is an important and emotive subject. The previous welfare codes have been strengthened with the ‘The Welfare of Farmed Animals (Northern Ireland) Regulations 2000’. A number of the recommendations from the previous welfare codes have been turned into legal requirements and implement European Union Directives on the welfare of calves, pigs and battery hens. Any person who causes unnecessary pain or distress to any livestock situated on agricultural land and under their control, or permits any such livestock to suffer any such pain or distress of which they know or may

be reasonably expected to know, shall be guilty of an offence. In addition, ignorance of the regulations is no longer a legitimate excuse.

The following basic points are common to all regulations. Livestock systems must be designed to provide:-

- Comfort and shelter;
- Readily accessible fresh water;
- Nutritionally adequate food;
- Freedom of movement;
- The company of other animals - particularly of like kind;
- The opportunity to exercise most normal patterns of behaviour;
- Light during daylight hours;
- Flooring which neither harms nor causes undue strain;
- The prevention of, or rapid diagnosis and treatment of vice, injury, parasitic infestation or disease;
- The avoidance of unnecessary mutilation;
- Emergency arrangements to cover outbreaks of fire, breakdown of mechanical services (including artificial ventilation equipment) and disruption of supplies.

Detailed advice on the application of the regulations in individual circumstances is available from local Divisional Veterinary Offices.

AVERAGE CONACRE RENTS BY TYPE OF USE 2005 - 2010

£ per hectare

Use	2005	2006	2007	2008	2009	2010
Grass	180	174	184	193	188	189
Potatoes	453	567	586	686	623	654
Cereals	156	186	190	222	211	240
Rough grazing	45	44	46	41	34	37
All uses	**158**	**165**	**162**	**171**	**168**	**172**

Source:- Farm Business Survey

SALES OF AGRICULTURAL LAND 1981 - 2006 [2] [3] [4] [5] [6]

Year	Number of sales	Area sold (ha)	Price [1] (£/ha)
1981	696	7,081	2,897
1982	921	8,950	2,683
1983	863	7,870	2,866
1984	815	8,105	2,958
1985	709	7,785	3,130
1986	725	7,682	3,128
1987	660	7,179	3,204
1988	660	7,791	2,855
1989	639	7,695	3,359
1990	489	5,249	3,313
1991	462	5,243	3,362
1992	467	4,552	3,383
1993	467	4,721	4,330
1994	420	4,605	5,056
1995	355	4,050	5,950
1996	223	3,425	5,419
1997	257	2,912	7,858
1998	223	2,151	8,746
1999	163	1,672	8,267
2000	174	1,614	9,634
2001	67	597	9,961
2002	55	550	12,456
2003	44	520	14,950
2004	40	562	16,286
2005	63	1,095	19,837
2006	85	2,303	24,870

(1) Calculated by dividing the total value of sales by the total area sold.

(2) Source:- DARD, compiled from Valuations and Lands Agency data.

(3) Excludes individual sales under 2 hectares (5 acres) up to 2001 and sales outside agriculture.

(4) There is a delay (estimated to be 3 months) between the date on which a sale is agreed and when it appears in this series.

(5) Figures for 2002 are estimates due to lack of data.

(6) Land sales of less than 5 hectares are not included for 2003, 2004 and 2005.

TAXATION 2011-2012

These notes on taxation are a summary only. A series of booklets giving details of tax related matters are available from any tax office on request. All booklets and other information are also available on the internet at www.hmrc.gov.uk Alternatively, a professional adviser may be approached.

1. Income Tax

1.1 Income Tax Allowances

	£
Personal allowance[1]	7,475
Personal allowance for people aged 65-74 [1,2]	9,940
Personal allowance for people aged 75 and over [1,2]	10,090
Married couple's allowance - aged 75 and over [2, 3]	7,295
Income limit for Personal Allowance	100,000
Income limit for age-related allowances	24,000
Minimum amount of married couple's allowance	2,800
Blind person's allowance	1,980

[1] From the 2010/11 tax year the personal allowance reduces where the income is above £100,000. When this is the case, it is reduced by £1 for every £2 of income above the £100,000 limit.

[2] These allowances reduce where the income is above the income limit for age related allowances by £1 for every £2 of income above the limit.

[3] Tax relief for the Married Couple's allowance is given at the rate of 10 per cent.

1.2 Income Tax rates (%)

	Income Tax Rate	Taxable Band
Starting rate for savings*:	10%	£0 to £2,560
Basic rate:	20%	£0 to £35,000
Higher rate:	40%	£35,001-£150,000
Additional rate:	50%	Over £150,000

*There is a 10 per cent starting rate for savings income only. If an individual's non-savings income is above this limit then the 10 per cent starting rate for savings will not apply.

The income tax rates available for dividends are 10% (ordinary), 32.5% (upper) and 42.5%(additional).

2. Corporation Tax

Profits are chargeable at the following rates:

	Profits band	Tax rate & allowances
Small Profits Rate	Up to £300,000	20%
Marginal Relief Rate	£300,001 to £1,500,000	26% less relief*
Main rate of Corporation Tax	Above £1,500,000	26%

*The relief is £1,500,000 minus the amount of profits multiplied by 3/200

3. Capital Gains Tax (CGT)

Applies to capital gains made by an individual. Capital gains accruing to companies are chargeable to Corporation Tax.

(a) Annual exemption of £10,600 for individuals with independent taxation.

(b) For gains on or before 22 June 2010, Capital Gains tax is charged at the rate of 18%. After this date, the tax rate for individuals is 10%, 18% or 28%. The rate of tax applied depends on total level of taxable income and whether the gains qualify for Entrepreneurs relief.

4. Inheritance Tax

Inheritance Tax (IHT) may be payable on an estate when someone dies, or when assets are transferred into a discretionary trust or to a company.

There is no Inheritance Tax to pay on estates up to £325,000 (effective from 6th April 2009). An excess above this value is liable to inheritance tax at a rate of 40% (most farms in Northern Ireland get 100% property relief).

5. Value Added Tax (VAT)

Annual turnover threshold for VAT registration £73,000 from 1 April 2011.

Three rates of VAT (Effective from 4th January 2011):

Standard rate – 20% - Most goods and services
Reduced Rate - 5% - Various items e.g. domestic fuel and power
Zero Rate – 0% - Certain goods and services e.g. food.

From 1 April 2010 many VAT-registered businesses had to switch from paper to online VAT Returns. From that date, if your annual turnover was £100,000 or more (exclusive of VAT) - or if you became VAT-registered on or after 1 April 2010 - you had to submit your return online and pay VAT electronically. From 1 April 2012, all remaining VAT-registered businesses (i.e. those registered for VAT before 1 April 2010 with a VAT-exclusive turnover of less than £100,000) will also have to submit VAT Returns online and pay any VAT due electronically.

In order to submit your VAT returns online you must register for online services on the HMRC website (www.hmrc.gov.uk)

6. Stamp Duty

Purchasers of property are subject to the following rates of stamp duty for property purchased from 6th April 2011.

- 0% on purchases below £125,000*
- 1% on purchases between £125,000 and £250,000*
- 3% on purchases between £250,001 and £500,000;
- 4% on purchases between £500,000 and £1 million;
- 5% on purchases above £1 million.

*From 25 March 2010 and up to 25 March 2012, purchases by first-time buyers are subject to a zero rate up to £250,000. Residential property in disadvantaged areas is also subject to a zero rate up to £150,000 and 1% between £150,000 and £250,000. Above this value the same rates as those specified above apply.

(Contact Inland Revenue for further details).

7. Forestry - wholly removed from income and corporation tax from 14 March 1988.

8. National Insurance

If you're self-employed you normally have to pay Class 2 National Insurance contributions. If your annual profits are over a certain amount you also pay Class 4 contributions. The relevant rates and thresholds for 2011/12 are:

Class 2 Self employed (up to state pension age)

Flat rate £2.50 per week (small earnings exemption £5,315 per year).

Class 4 Self employed (up to state pension age)

9.0% of profits/gains between £7,225 and £42,475.
2.0% of profits/gains over £42,475.

SELF ASSESSMENT AND CURRENT YEAR ASSESSMENT OF TAX

1. Self assessment.

Self Assessment involves completing an online or paper return to inform HM Revenue & Customs (HMRC) about income, capital gains etc. This information is used by HMRC to work out your tax bill or you can do this yourself. HMRC will issue a notice to complete a tax return for the previous tax year after the start of the new tax year to everyone they know is required to complete a self-assessment return. Tax returns relating to 2011/12 tax year must be sent back by the following deadlines:

- Paper returns - **31 October 2012**. The deadline for paper tax returns is later than this if you receive the notice to file your tax return after the 31

July. In this case you'll have three months from the date you receive the notice if you want to send in a paper return.

- Online returns - **31 January 2013**. The deadline is earlier if you owe tax of less than £2,000 and you want HMRC to collect it by reducing your Pay As You Earn (PAYE) tax code next year. In this case you need to send your tax return online by **30 December 2012** instead. HMRC will try to amend your code number, but it's not always possible, and you may still have to make a payment instead by 31 January.

  The deadline is only later than 31 January if you received the notice to file your tax return after 31 October. You'll then have three months from the date you receive the notice to send your return online.

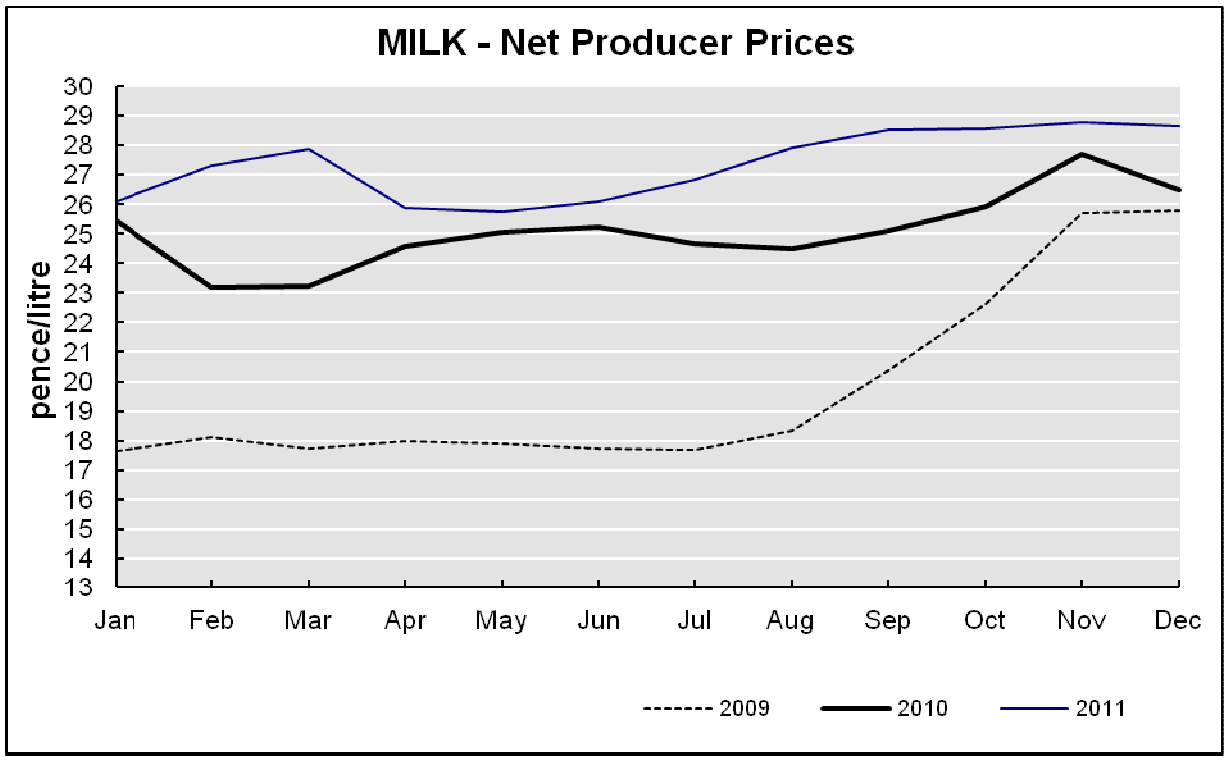
  In order to submit your form online you must register for online services on the HMRC website (www.hmrc.gov.uk)

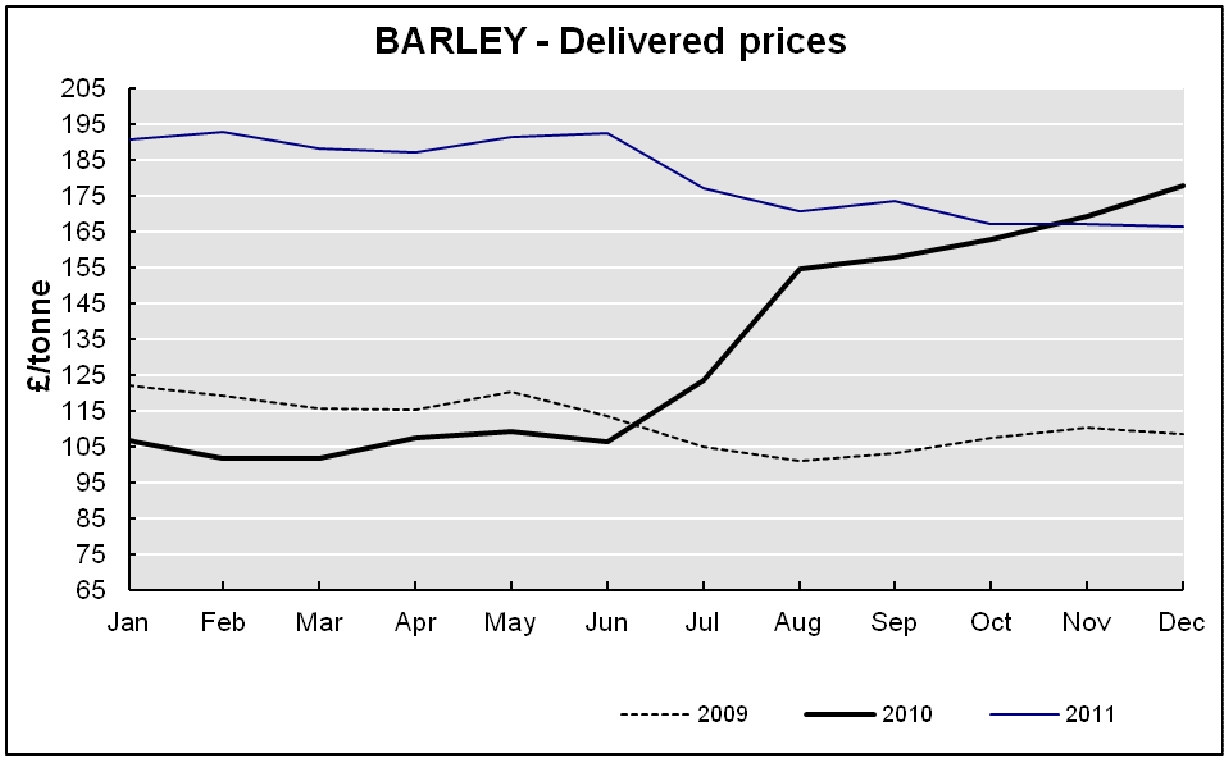
Fixed automatic penalties will apply to late returns and interest and penalties for late payments. There is now a statutory requirement to keep records including relevant receipts, invoices etc. to support the figures entered on the return.

2. Current (same) year assessment.

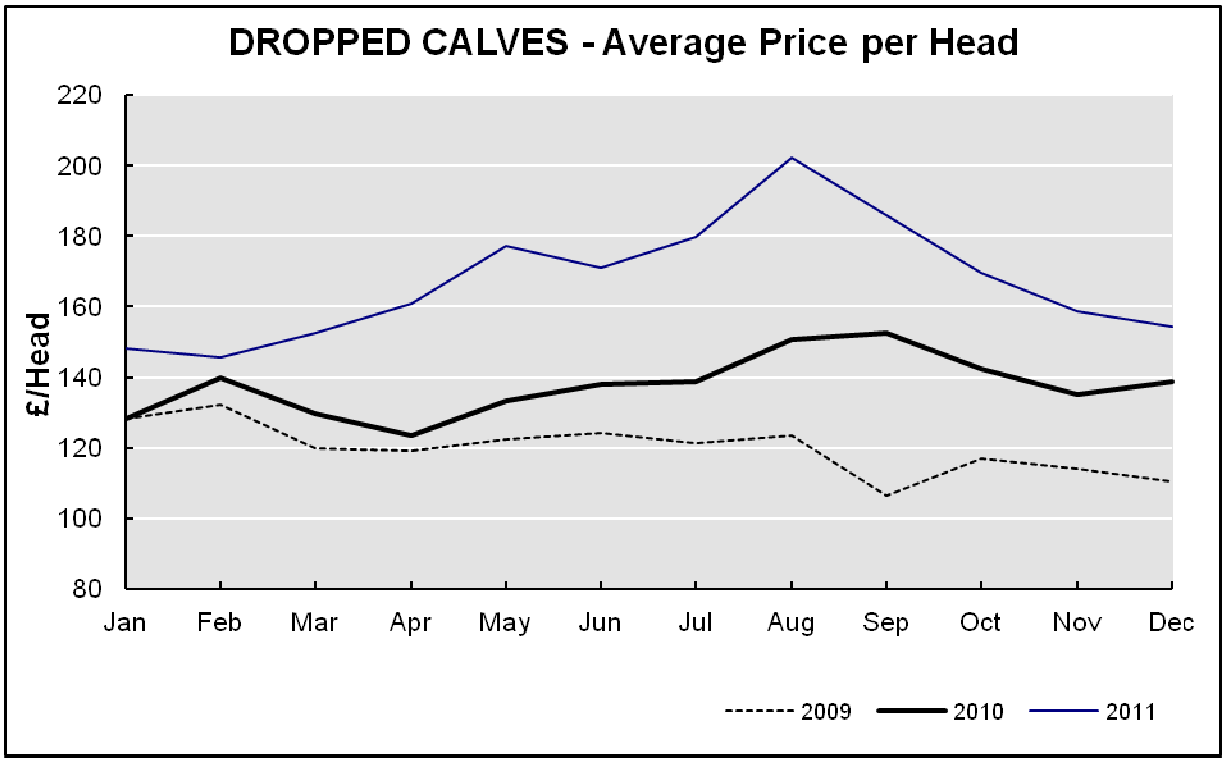
The tax liability will be based on the profit arising in the same year. Therefore, taxable business profits for any year will be those shown on a set of yearly accounts ending in that tax year

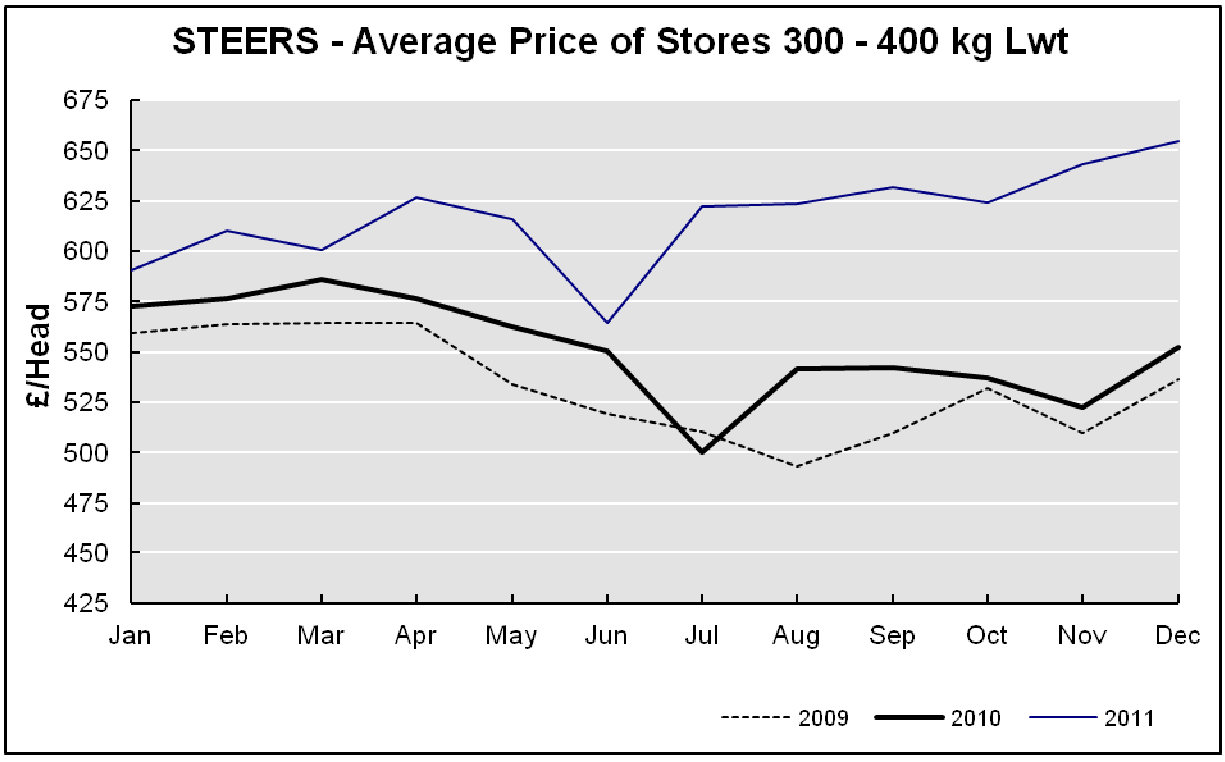
MILK AND BARLEY PRICES, 2009 - 2011



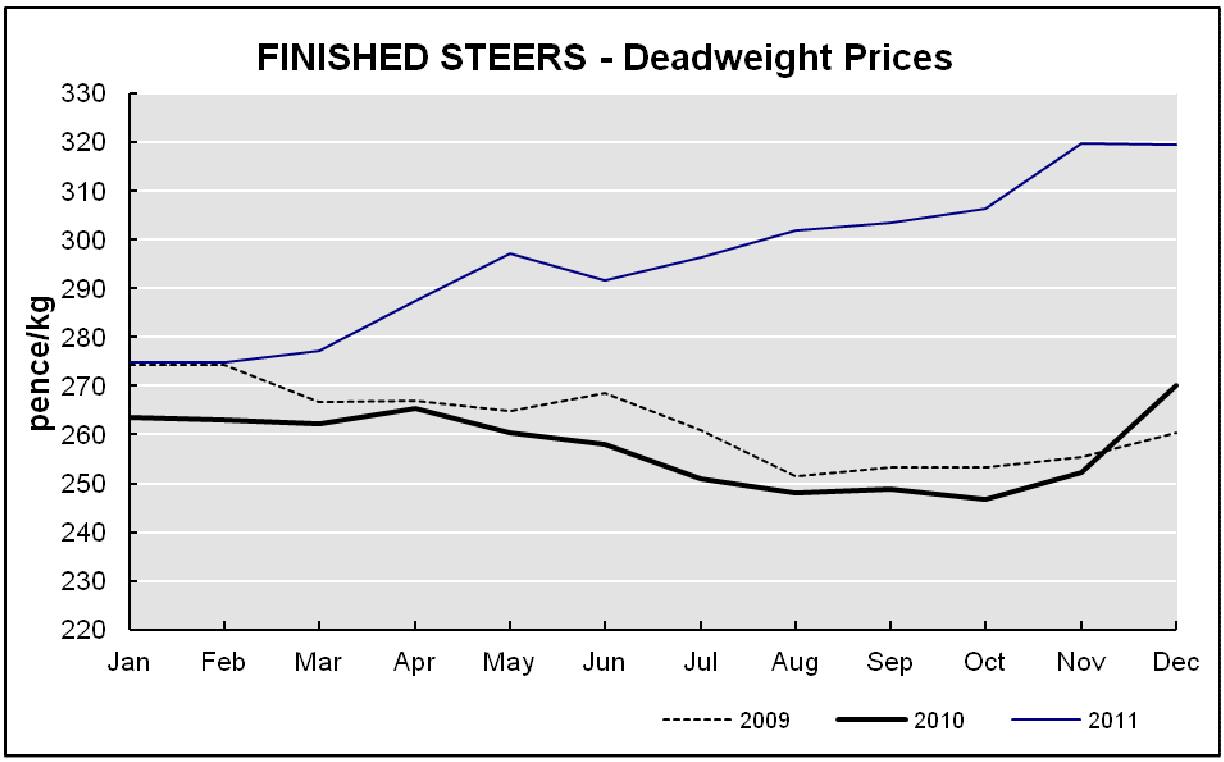


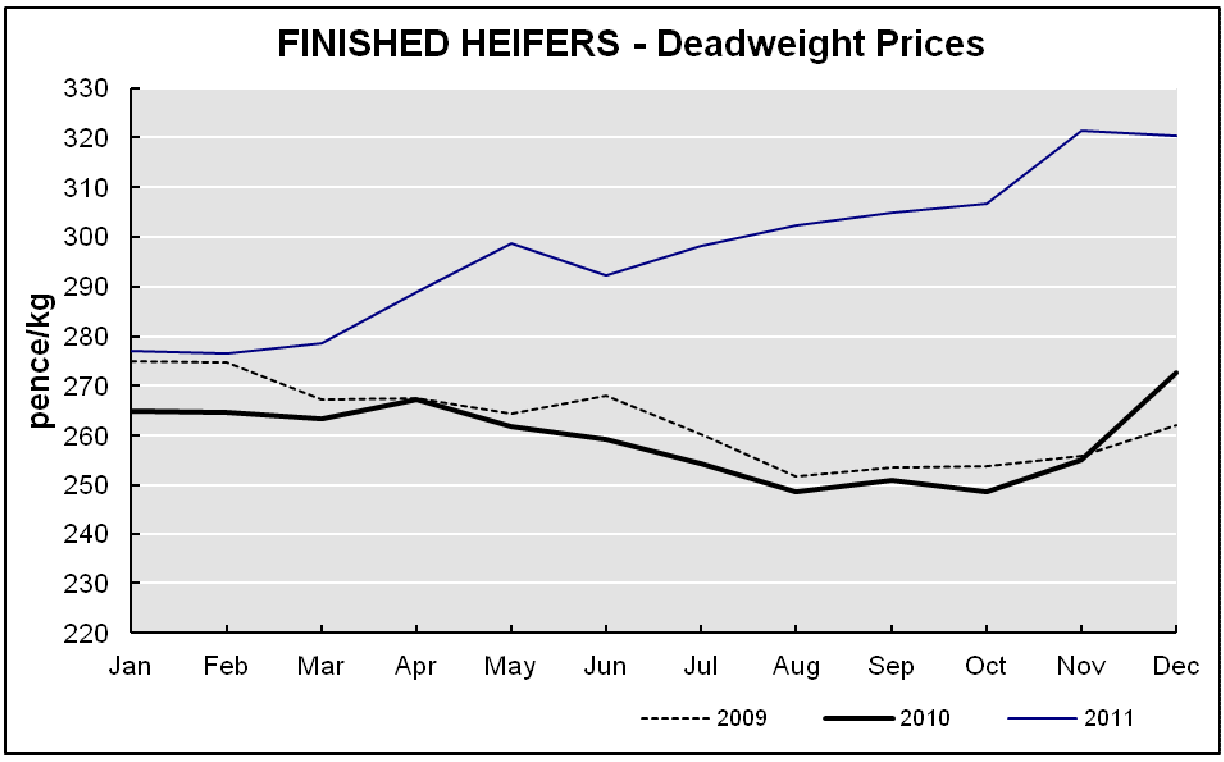
CATTLE PRICES, 2009 - 2011



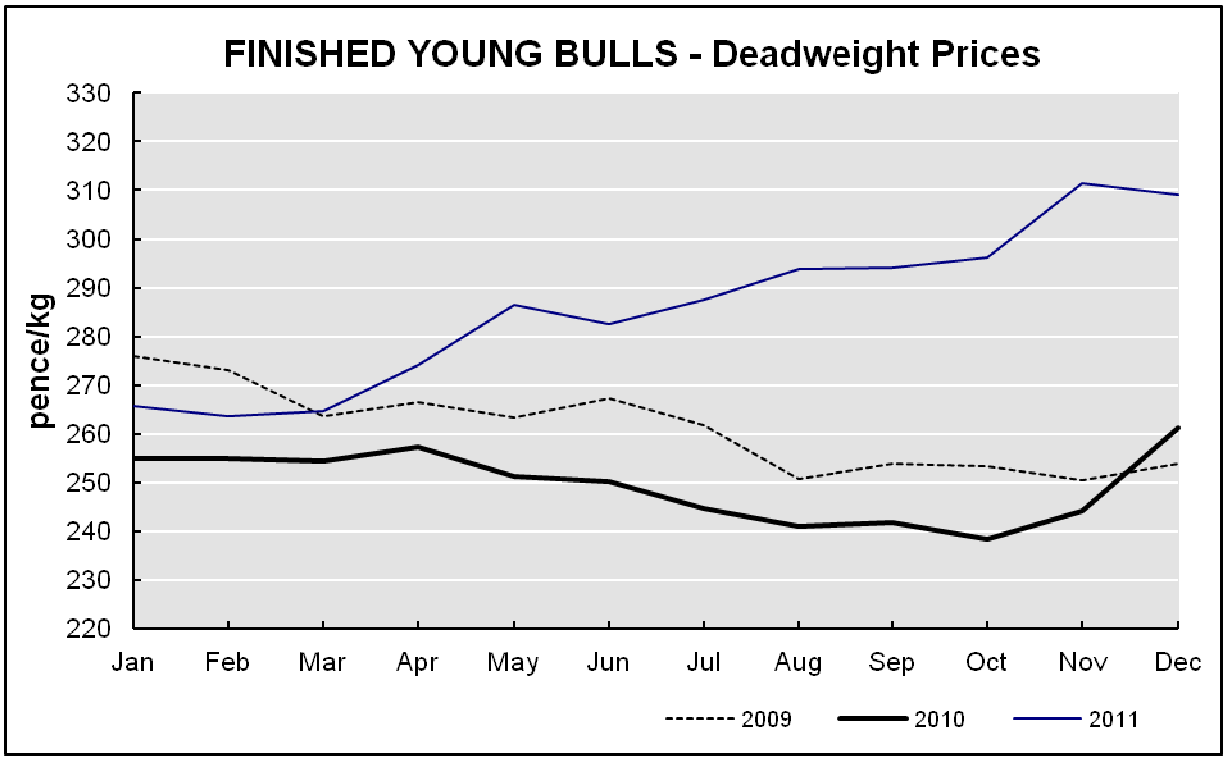


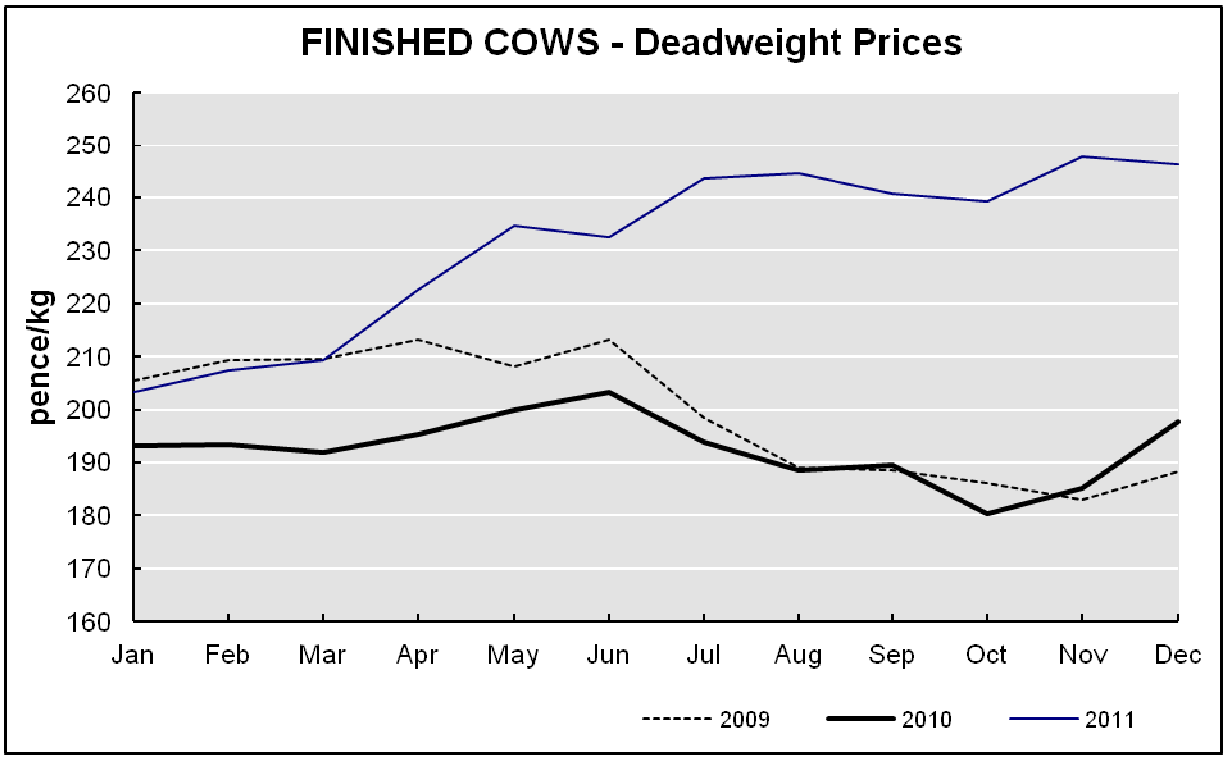
BEEF PRICES, 2009 - 2011



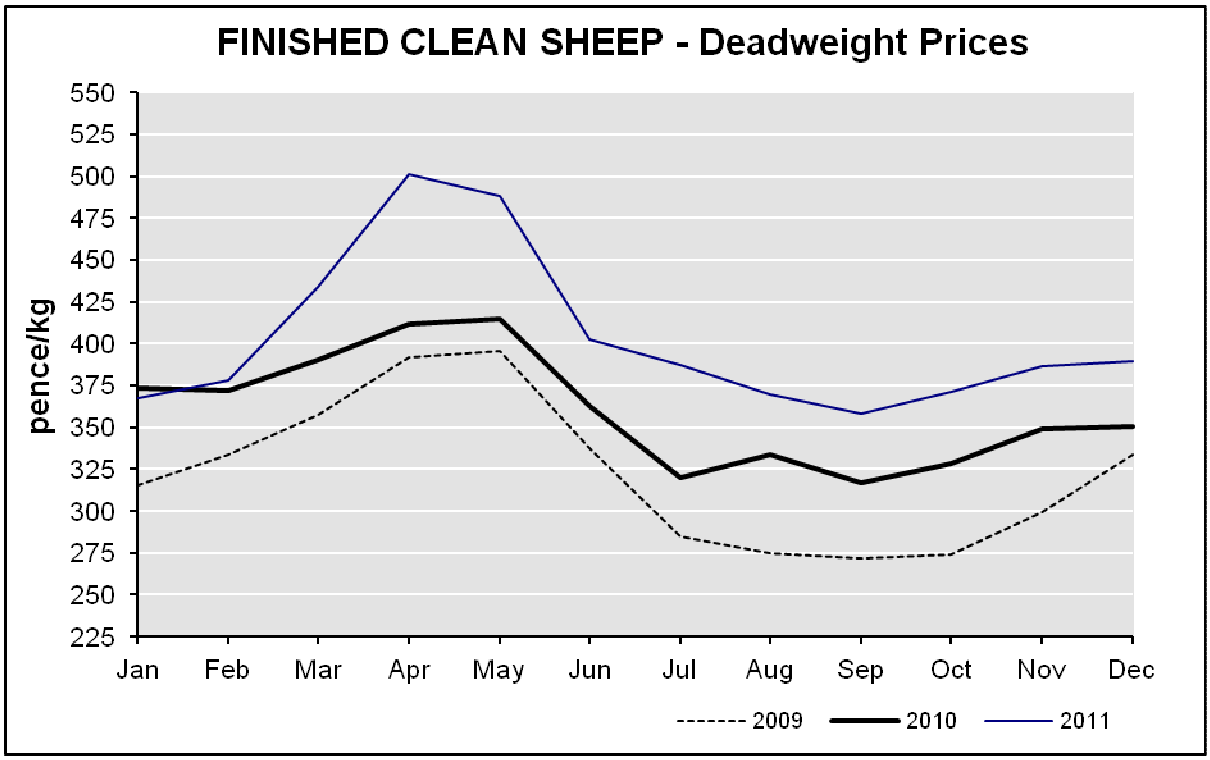


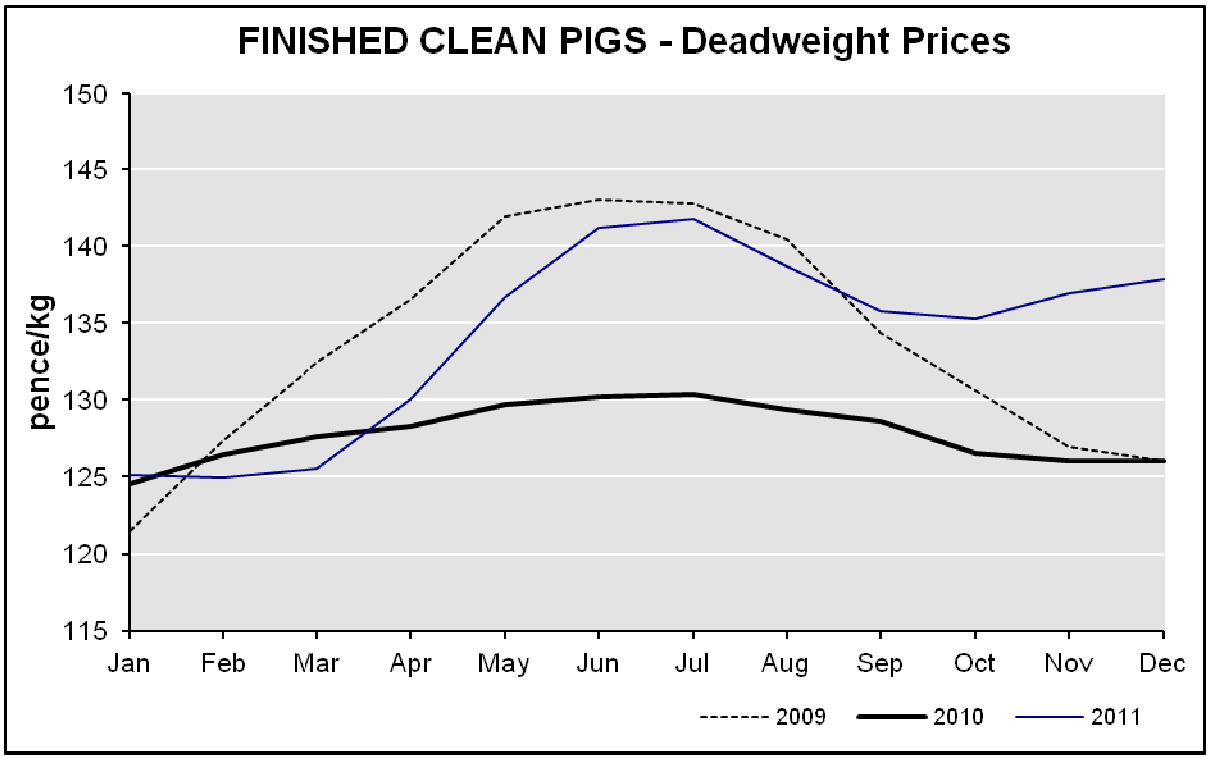
BEEF PRICES, 2009 - 2011





LAMB AND PIGMEAT PRICES, 2009 - 2011





DARD CONTACT LIST

You can contact the Department of Agriculture and Rural Development (DARD) by telephone, in writing, by email or by forwarding your request through the website www.dardni.gov.uk

By Telephone

If you know the name of the person you wish to speak to, please telephone **0845 30 44 510**. For all other enquiries please select the appropriate number from page 123.

The DARD Helpline number is **0300 200 7852**

In Writing

If you wish to write to the Department you can use the following postal address:

Department of Agriculture and Rural Development
Dundonald House
Upper Newtownards Road
Ballymiscaw
Belfast BT4 3SB
Northern Ireland, UK

By Email

The DARD Helpline email is dardhelpline@dardni.gov.uk

By Website

Customer feedback/queries can be made at:
http://www.dardni.gov.uk/index/contact-us/feedback-dard.htm

Customer complaints can be made at:
www.dardni.gov.uk/index/customer-service/complaints-procedure/customer-complaints-logging-form.htm

New DARD Telephone Numbers

Animal Health & Welfare and Veterinary Public Health Information and services relating to livestock movements, trade, animal welfare, veterinary public health, and the prevention and control of animal diseases.	**0300 200 7840**
Cattle Registration Line Registration of cattle births and deaths by telephone.	**0300 200 7855**
Education and Training Education and training courses provided by CAFRE.	**0300 200 7841**
Environment Agri-environment schemes. Countryside Management advice including Cross-Compliance, Nitrates Directive, Codes of Good Agriculture Practice, Farm Waste Management, Uncultivated Land Regulations and Field Boundary Removals.	**0300 200 7842**
Farming Livestock. Crops. Horticulture. Plant health. Equine. Organic farming. Farm business management. Information technology.	**0300 200 7843**
Fisheries Aquaculture. Sea fisheries. Fish health. Foyle, Carlingford & Irish Lights Commission.	**0300 200 7844**
Flood Defence and Drainage Sea and river defences. Flood protection. Flood risk management. Drainage. Maintenance of designated watercourses. *For flooding emergencies call the Flooding Incident Line 0300-2000-100.*	**0300 200 7845**
Food Knowledge and technology transfer. Marketing support to food businesses. Food industry training. Food Business Incubation Centre. Food Safety. Product certification. Marketing and quality standards.	**0300 200 7846**
Forests Timber production and marketing. Plant health controls for wood and bark, Woodland grants (including Short Rotation Coppice). Recreation. Educational visits. *For caravanning and camping bookings you will need to book directly with the Forest Park.*	**0300 200 7847**
Grants and Funding Single Farm Payment, LFACA, agri-environment, farm, fisheries, forestry and rural development payments and grants, pre-2005 schemes.	**0300 200 7848**
Rural Development Northern Ireland Rural Development Programme, Rural and community development, Farm diversification, Rural Champion, Rural Proofing, Rural White Paper.	**0300 200 7849**
DARD Corporate Services DARD Headquarters, Press Office, information services and systems, human resources and facilities management.	**0300 200 7850**
Textphone For people with hearing difficulties.	**0300 200 7851**
Calls from non-UK numbers or networks/International Calls	**+44(0) 28 9037 8418**

Agri-Food and Biosciences Institute (AFBI)

Agri-Food and Biosciences Institute Headquarters
(Agri-Environment, Economics, Fisheries, Food Science, Plant Science, Statistics)
18A Newforge Lane
BELFAST BT9 5PX
Tel: 028 9025 5689
Website: www.afbini.gov.uk
e-mail: info@afbini.gov.uk

AFBI Crossnacreevy
(Seed Certification Plant Testing Station)
50 Houston Road
Crossnacreevy
Castlereagh
BELFAST BT6 9SH
Tel: 028 9054 8000

AFBI Hillsborough
(Agricultural Research Institute)
Large Park
HILLSBOROUGH BT26 6DR
Tel: 028 9268 2484

AFBI Stormont
(Veterinary Sciences Division)
Stoney Road
BELFAST BT4 3SD
Tel: 028 9052 5791

AFBI Omagh
(Veterinary Sciences Division)
43 Beltany Road
Coneywarren

OMAGH BT78 5NF
Tel: 028 8224 3337

AFBI Loughgall
(Horticulture and Plant Breeding Station)
Manor House
Loughgall
ARMAGH BT61 8JA
Tel: 028 3889 2344

Agri-Food and Biosciences Institute (AFBI) was created on 1st April 2006 as the amalgamation of DARD Science Service and the Agricultural Research Institute of Northern Ireland.

****

Department of the Environment (DOE)
Northern Ireland Environment Agency (NIEA)

Water Management Unit, 17 Antrim Rd, Lisburn, BT28 3AL

Internet - http://www.doeni.gov.uk/niea/

General Enquiries	Tel: 028 9262 3100	Fax Number: 028 9267 6054
Nitrates regulations	Tel: 028 9262 3184	
Nitrates Derogation	Tel: 028 9262 3189	
SSAFO Regulations	Tel: 028 9262 3102	
Groundwater authorisations	Tel: 028 9262 3278	
Sewage Sludge to Land	Tel: 028 9262 3445	

Water Pollution Hotline Tel: 0800 80 70 60
(A 24-hour confidential hotline for reporting pollution incidents)

Policy and Economics Division
Department of Agriculture and Rural Development
Dundonald House
Upper Newtownards Road
Ballymiscaw
BELFAST
BT4 3SB

Copies of this booklet can be made available on request in alternative formats.
Please telephone 028 9052 4063

Department of
Agriculture and
Rural Development
www.dardni.gov.uk

AN ROINN
Talmhaíochta agus
Forbartha Tuaithe

MÄNNYSTRIE O
Fairms an
Kintra Fordèrin

ISBN 978-1-84807-297-8
£7.50

DMS 11.12.232