



Department of

# Agriculture and Rural Development

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AN ROINN

**Talmhaíochta agus Forbartha Tuaithe**

MÁNNYSTRIE O

**Fairms an Kintra Fordèrin**

POLICY AND ECONOMICS DIVISION

## Farm Business Data 2014



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## Foreword

The 2014 year will see the agricultural industry and individual farm businesses continue to face challenges created by relatively high 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 2012/13', available from Policy and Economics Division in DARD. Alternatively, it may be accessed on the DARD website at <http://www.dardni.gov.uk/statistics-ni-farm-performance-indicators.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data are again advised to make appropriate adjustments to enterprise data when those presented in the handbook become out of date or are felt to be inappropriate for long-term planning.**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:

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**March 2014**

## 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 98 to 100.

### 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 most 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 110 to 113 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.

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## 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 2014 (unless otherwise stated) and is based on price information available at the time of preparation (February 2014). 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 75.

## **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 92 and 93. 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	
<b>Grain output (£)</b>	<b>600</b>	<b>750</b>	<b>975</b>
Straw yield (tonnes)	3.0	3.5	4.5
Price per tonne (£)		75	
<b>Straw output (£)</b>	<b>225</b>	<b>263</b>	<b>338</b>
<hr/> <b>OUTPUT (£)</b> <hr/>	<hr/> <b>825</b> <hr/>	<hr/> <b>1,013</b> <hr/>	<hr/> <b>1,313</b> <hr/>
		£	
Seed 187 kg		86	
Fertiliser 120: 55:55		180	
Sprays herbicide		30	
fungicide		40	
growth regulator		14	
Sundries twine etc.		25	
<b>Total Variable Costs</b>		<hr/> <b>375</b> <hr/>	
<hr/> <b>GROSS MARGIN</b> <hr/>	<hr/> <b>450</b> <hr/>	<hr/> <b>638</b> <hr/>	<hr/> <b>938</b> <hr/>

- (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 84 to 87 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	6.0
Price per tonne (£)		170	
<b>Grain output (£)</b>	<b>646</b>	<b>850</b>	<b>1,020</b>
Straw yield (tonnes)	3.3	3.6	4.2
Price per tonne (£)		65	
<b>Straw output (£)</b>	<b>215</b>	<b>234</b>	<b>273</b>
<b>OUTPUT (£)</b>	<b>861</b>	<b>1,084</b>	<b>1,293</b>
		£	
Seed 187 kg		97	
Fertiliser 80: 55: 55		140	
Sprays herbicide		30	
fungicide		25	
growth regulator		14	
Sundries twine etc.		25	
<b>Total Variable Costs</b>		<b>331</b>	
<b>GROSS MARGIN</b>	<b>530</b>	<b>753</b>	<b>962</b>

- (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 84 to 87 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	8.0
Price per tonne (£)		150	
<b>Grain output (£)</b>	<b>900</b>	<b>1,050</b>	<b>1,200</b>
Straw yield (tonnes)	3.5	5.0	5.5
Price per tonne (£)		75	
<b>Straw output (£)</b>	<b>263</b>	<b>375</b>	<b>413</b>
<b>OUTPUT (£)</b>	<b>1,163</b>	<b>1,425</b>	<b>1,613</b>
		£	
Seed 187 kg		86	
Fertiliser 150: 70: 70		225	
Sprays herbicide		40	
fungicide (x2)		80	
insecticide		8	
growth regulator		14	
Sundries twine etc.		25	
<b>Total Variable Costs</b>		<b>478</b>	
<b>GROSS MARGIN</b>	<b>685</b>	<b>947</b>	<b>1,135</b>

- (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 84 to 87 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 (£)		170	
<b>Grain output (£)</b>	<b>850</b>	<b>1,105</b>	<b>1,360</b>
Straw yield (tonnes)	4.0	4.6	5.3
Price per tonne (£)		65	
<b>Straw output (£)</b>	<b>260</b>	<b>299</b>	<b>345</b>
<b>OUTPUT (£)</b>	<b>1,110</b>	<b>1,404</b>	<b>1,705</b>
		£	
Seed 187 kg		101	
Fertiliser 100: 55: 55		160	
Sprays herbicide		40	
fungicide (x 2)		80	
growth regulator		14	
Sundries twine etc.		25	
<b>Total Variable Costs</b>		<b>420</b>	
<b>GROSS MARGIN</b>	<b>690</b>	<b>984</b>	<b>1,285</b>

- (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 84 to 87 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 (£)		170	
<b>Grain output (£)</b>	<b>1,190</b>	<b>1,360</b>	<b>1,615</b>
Straw yield (tonnes)	4.5	5.0	5.5
Price per tonne (£)		65	
<b>Straw output (£)</b>	<b>293</b>	<b>325</b>	<b>358</b>
<b>OUTPUT (£)</b>	<b>1,483</b>	<b>1,685</b>	<b>1,973</b>

		£
Seed	187 kg	92
Fertiliser	180: 70: 70	250
Sprays	herbicide	40
	fungicide (x3)	130
	growth regulator	14
Sundries	twine etc.	25
<b>Total Variable Costs</b>		<b>551</b>
<b>GROSS MARGIN</b>		<b>932</b>

- (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 84 to 87 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 (£)		320	
<b>Seed output (£)</b>	<b>576</b>	<b>768</b>	<b>928</b>
<b>OUTPUT (£)</b>	<b>576</b>	<b>768</b>	<b>928</b>

		£
Seed	8 kg	68
Fertiliser	80: 30: 0	80
Sprays	insecticide	15
	fungicide	40
	desiccant	35
Slug pellets		15
<b>Total Variable Costs</b>		<b>253</b>
<b>GROSS MARGIN</b>		<b>323      515      675</b>

- (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 84 to 87 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 (£)		320	
<b>Seed output (£)</b>	<b>832</b>	<b>1,056</b>	<b>1,280</b>
<b>OUTPUT (£)</b>	<b>832</b>	<b>1,056</b>	<b>1,280</b>
		£	
Seed      8 kg		72	
Fertiliser    190: 50: 20		210	
Sprays      herbicide		55	
fungicide		40	
desiccant		35	
Slug pellets		15	
<b>Total Variable Costs</b>		<b>427</b>	
<b>GROSS MARGIN</b>	<b>405</b>	<b>629</b>	<b>853</b>

- (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 84 to 87 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	@	230	(14)	3,220	(21)	4,830	(25)	5,750
Ware ( ) tonnes	@	150	(5)	750	(8)	1,200	(10)	1,500
Chats ( ) tonnes	@	10	(1)	10	(2)	20	(3)	30
<b>OUTPUT</b>				<b>3,980</b>		<b>6,050</b>		<b>7,280</b>
				£/t				
Seed	4.0t	@	300			1,200		
Fertiliser	95 : 195 : 185					380		
Sprays	herbicide					45		
	fungicide (blight x 7)					155		
	desiccant (burning down)					40		
	aphidicide					25		
Potato inspection fees				113		147		166
<b>Total Variable Costs</b>				<b>1,958</b>		<b>1,992</b>		<b>2,011</b>
<b>GROSS MARGIN</b>				<b>2,022</b>		<b>4,058</b>		<b>5,269</b>

- (a) Potato inspection fees quoted are those proposed for 2014. 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 84 to 87 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
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
240	3,360	4,080	4,800	5,280	6,000
260	3,640	4,420	5,200	5,720	6,500

## FIRST EARLY POTATOES PER HECTARE

		£/t	LOW £	TYPICAL £	HIGH £
Ware ( ) tonnes	@ 250	(14)	3,500	(19) 4,750	(22) 5,500
Chats (1) tonne	@ 10		10	10	10
<b>OUTPUT</b>			<b>3,510</b>	<b>4,760</b>	<b>5,510</b>
		£/t			
Seed 3.5t	@ 350			1,225	
Fertiliser 120 : 130 : 200				350	
Sprays herbicide				35	
fungicide (blight x 3)				90	
Potato sacks	@ 8.30		116	158	183
<b>Total Variable Costs</b>			<b>1,816</b>	<b>1,858</b>	<b>1,883</b>
<b>GROSS MARGIN</b>			<b>1,694</b>	<b>2,902</b>	<b>3,627</b>

- (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 84 to 87 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
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
350	3,500	5,250	7,000	8,750

## MAINCROP WARE POTATOES PER HECTARE

		£/t	LOW £	TYPICAL £	HIGH £
Ware ( ) tonnes	@ 125	(33)	4,125	(40) 5,000	(45) 5,625
Chats (2) tonnes	@ 10		20	20	20
<b>OUTPUT</b>			<b>4,145</b>	<b>5,020</b>	<b>5,645</b>
		£/t			
Seed 3.0t	@ 300			900	
Fertiliser 100 :180 : 200				380	
Sprays herbicide				35	
fungicide (blight x 11)				245	
desiccant (burning down)				40	
Slug pellets				15	
Potato boxes	@ 10.50		347	420	473
<b>Total Variable Costs</b>			<b>1,962</b>	<b>2,035</b>	<b>2,088</b>
<b>GROSS MARGIN</b>			<b>2,183</b>	<b>2,985</b>	<b>3,557</b>

- (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 84 to 87 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.
- (e) Output of ware per hectare (£)

Price per tonne £	Ware Yield (tonnes per hectare)				
	20	25	30	35	40
90	1,800	2,250	2,700	3,150	3,600
110	2,200	2,750	3,300	3,850	4,400
130	2,600	3,250	3,900	4,550	5,200
150	3,000	3,750	4,500	5,250	6,000
170	3,400	4,250	5,100	5,950	6,800
190	3,800	4,750	5,700	6,650	7,600

## CEREAL SPRAYS

	Main use	Examples of proprietary products	Approximate cost per hectare (£)
<b>Herbicides</b>	Spring cereals (Broad spectrum)	Ally SX, Jubilee SX, Starane XL, Harmony M, Compitox Plus	15 to 31
	Winter cereals (Broad spectrum)	<b>Pre-emergence</b> – Crystal, Ice, Orient Firebird.	25 to 48
	Winter cereals (Broad spectrum)	<b>Post-emergence -</b> Ally SX, Jubilee SX, Othello	15 to 41
<b>Fungicides</b>	Barley (Broad spectrum)	Amistar Pro, Fandango, Siltra, Bontima	36 to 49
	Wheat (Broad spectrum)	Folicur, Silvacur, Opera, Opus, Proline, Aviator, Treoris, Brutus	25 to 53
	(Mildew)	Corbel	23 to 26
<b>Insecticides</b>	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 £1.30 - £1.75 per litre. Contractors charge for treatment (excluding chemical) approximately £1.30 per tonne.

(ii) Grain drying

Contract charges - handling charge approximately £2-2.50 per tonne plus £3-4.50 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

<b>Original MC</b>	<b>Equiv. Weight of 100t dried To 15% MC (t)</b>	<b>% Weight loss</b>
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) 2013/2014

Feed Barley (£/tonne)

November 2013	160
January 2014	160
March	165
May	165

## OILSEED RAPE SPRAYS

	<b>Examples of proprietary products</b>	<b>Approximate cost per hectare (£)</b>
<b>Herbicides</b>	<b>Post-emergence</b> - Kerb, Butisan, Galera	30 to 49
<b>Fungicides</b>	Folicur, Proline	25 to 56

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

		<b>Examples of proprietary products</b>	<b>Approximate cost per hectare (£)</b>
<b>Herbicides</b>	Broad Spectrum	Sencorex, Linuron, Titus, Retro	27 to 75
	Couchgrass	Glyphosate, Laser	35 to 70
<b>Fungicides</b>		Bravo 500, Dithane 945, Invader, Fubol Gold, Shirlan, Curzate, Infinito, Prompto	7 to 30
<b>Desiccants</b>		Reglone, Harvest, Sulphuric acid <sup>1</sup> , Spotlight	35 to 46

(Haulm chopping can be an alternative to spraying.)

<sup>1</sup> 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	£/ha	Other variable costs (£)	Total variable cost per hectare (£)
1.4	60	56	54	110
1.5	75	69	54	123
1.6	90	83	54	137
1.7	105	97	54	151
<b>1.8</b>	<b>120</b>	<b>111</b>	<b>54</b>	<b>165</b>
1.9	135	125	54	179
<b>2.0</b>	<b>150</b>	<b>139</b>	<b>54</b>	<b>193</b>
2.1	170	157	54	211
2.2	190	176	54	230
2.3	210	194	54	248
2.4	230	213	54	267
2.5	250	231	54	285

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 £193 per hectare. For most other grazing livestock budgets a stocking rate of 1.8 cow equivalents per hectare is used i.e. the grazing variable costs are £165 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 84 to 87 for further details).

### (ii) Grazing - other variable costs

#### a) Grassland reseeding costs

		£ per hectare
Ground limestone	5 tonnes @ 18 £/t	90
Grass seed	35 kg @ 4.64 £/kg	163
Fertiliser 60 : 50 : 50		120
Spray - sward kill		30
- herbicide		40
<b>Total Cost</b>		<b>443</b>



- (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 £44.30 per hectare.

### **b) Grassland spraying costs**

The annual cost of herbicide is estimated at £10.00 per hectare – assumes spray 1 year in 4 against grassland weeds at cost of £40.00 per hectare.

### **(iii) Silage Variable Costs**

	£ per hectare	£ per tonne
Fertiliser 190 : 50 : 100	250	6.25
Other variable costs	54	1.35
Contractors charge	425	10.63
Additives	65	1.63
Polythene	5	0.13
<b>Total Cost</b>	<b>799</b>	<b>19.99</b>

- (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 £17.87. This increases to £22.12 with 3 cuts.
- (5) When the farmer uses his own machinery, the total variable cost per tonne of silage is £9.36.
- (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 £24.98 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	175	22	44
Reseeding allowance	54	7	14
Contract - mowing	35	4	9
- turning (x2)	32	4	8
- bailing (inc. twine)	200	25	50
Total Cost	496	62	124

- (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 57p.
- (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 £304, £504 and £704 per hectare respectively. These figures rise to £571, £771 and £971 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**

<b>Main Use</b>	<b>Examples of proprietary products</b>	<b>Approximate Cost per hectare (£)</b>
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, Flail.	60 to 120
Docks (non clover swards)	Doxstar, Starane, Forefront Dockmaster Grassland.	45 to 49
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**

	<b>% of Harvestable Dry Matter</b>
April	11
May	19
June	20
July	17
August	14
September	12
October	3
November to March	4
Total	100.0

### (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	2.07	1.58 to 2.63
Dairy followers	2.17	2.05 to 2.65
Sucklers cows (new LFA)	1.56	1.36 to 1.84
Dairy calf to beef systems	2.08	1.90 to 2.14
Beef calf to beef systems	1.51	1.19 to 1.81
Breeding ewes (lowland)	1.49	1.35 to 2.20

Source: Northern Ireland Farm Business Survey, 2012/13.

### (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**

<b>Manure</b>		<b>Total Nutrient</b>			<b>Available Nutrient <sup>1</sup></b>		
<b>Form</b>	<b>% DM</b>	<b>N</b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>K<sub>2</sub>O</b>	<b>N</b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>K<sub>2</sub>O</b>
<b>Fresh FYM <sup>2</sup></b>		----- (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
<b>Poultry Manure</b>		----- (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
<b>Slurries</b>		----- (kg/m <sup>3</sup> ) -----					
Dairy <sup>3</sup>	6	3.0	1.2	3.5	0.1- 0.9	0.6	3.2
Beef <sup>3</sup>	6	2.3	1.2	2.7	0.1- 0.7	0.6	2.4
Pig <sup>3</sup>	6	5.0	3.0	3.0	0.2- 1.8	1.5	2.7

<sup>1</sup> 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.

<sup>2</sup> N and K<sub>2</sub>O values will be lower if farm yard manure (FYM) is stored under open conditions for long periods.

<sup>3</sup> 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<sup>3</sup> = 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 @ 31.7	<b>1,617</b>	<b>1,839</b>	<b>1,997</b>
Calves		<b>120</b>	
<b>Less</b> herd replacement cost		<b>236</b>	
<b>OUTPUT</b>	<b>1,501</b>	<b>1,723</b>	<b>1,881</b>
	£		
Concentrates @ 280	457	520	564
Grazing 0.275 @ 193		53	
Silage 9.0 @ 19.99		180	
Sundries (AI, vet, misc)		110	
<b>Total Variable costs</b>	<b>800</b>	<b>863</b>	<b>907</b>
<b>GROSS MARGIN PER COW</b>	<b>701</b>	<b>860</b>	<b>974</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>	<b>1,402</b>	<b>1,720</b>	<b>1,947</b>
<b>GROSS MARGIN PER 1,000 LITRES</b>	<b>137</b>	<b>148</b>	<b>155</b>

- (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 £500.
- (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	16.83	33.65

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

		LOW	TYPICAL	HIGH
Milk yield (litres)		4,800	5,300	5,800
Milk sales	ppl @ 31.5	£ 1,512	£ 1,670	£ 1,827
Calves			120	
<b>Less</b> herd replacement cost			<b>236</b>	
<b>OUTPUT</b>		<b>1,396</b>	<b>1,554</b>	<b>1,711</b>
	£			
Concentrates	@ 280	363	401	438
Grazing	0.325 @ 193		63	
Silage	7.0 @ 19.99		140	
Sundries (AI, vet, misc)			110	
<b>Total Variable costs</b>		<b>676</b>	<b>713</b>	<b>751</b>
<b>GROSS MARGIN PER COW</b>		<b>720</b>	<b>840</b>	<b>960</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>		<b>1,441</b>	<b>1,680</b>	<b>1,920</b>
<b>GROSS MARGIN PER 1,000 LITRES</b>		<b>150</b>	<b>159</b>	<b>165</b>

- (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 £500.
- (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	18.04	36.08

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

		LOW TYPICAL	HIGH	
Milk yield (litres)		5,500	6,500	7,300
	ppl	£	£	£
Milk sales	32.0	<b>1,760</b>	<b>2,080</b>	<b>2,336</b>
Calves			<b>120</b>	
<b>Less</b> herd replacement cost			<b>245</b>	
<b>OUTPUT</b>		<b>1,635</b>	<b>1,955</b>	<b>2,211</b>
	£			
Concentrates	@ 280	493	582	654
Grazing	0.250 @ 193		48	
Silage	10.0 @ 19.99		200	
Sundries (AI, vet, misc)			130	
<b>Total Variable costs</b>		<b>871</b>	<b>961</b>	<b>1032</b>
<b>GROSS MARGIN PER COW</b>		<b>764</b>	<b>994</b>	<b>1,179</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>		<b>1,528</b>	<b>1,989</b>	<b>2,358</b>
<b>GROSS MARGIN PER 1,000 LITRES</b>		<b>139</b>	<b>153</b>	<b>161</b>

(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 £500.

(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	17.22	34.44



## DAIRY COWS - AVERAGE CALVING PATTERN (53% SUMMER MILK)

		LOW	TYPICAL	HIGH
Milk yield (litres)		5,800	6,700	7,500
Milk sales	ppl 32.0	£ 1,856	£ 2,144	£ 2,400
Calves			120	
Less herd replacement cost			245	
<b>OUTPUT</b>		<b>1,731</b>	<b>2,019</b>	<b>2,275</b>
	£			
Concentrates	@ 280	536	619	693
Grazing	0.262 @ 193		51	
Silage	9.5 @ 19.99		190	
Sundries (AI, vet, misc)			120	
<b>Total Variable costs</b>		<b>896</b>	<b>980</b>	<b>1053</b>
<b>GROSS MARGIN PER COW</b>		<b>835</b>	<b>1,039</b>	<b>1,222</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>		<b>1,669</b>	<b>2,079</b>	<b>2,443</b>
<b>GROSS MARGIN PER 1,000 LITRES</b>		<b>144</b>	<b>155</b>	<b>163</b>

(1) Average calving pattern in Northern Ireland (based on calf registrations):-

January/February	19.3%
March/April	19.0%
May/June	13.8%
July/August	11.2%
September/October	18.4%
November/December	18.4%

(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 £500.

(5) Concentrate usage of 0.33kg/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	67.00	134.00
± £5/t in concentrates price	11.06	22.11
± 100 litres milk	17.38	34.76

## DAIRY HEIFER REPLACEMENTS - AUTUMN BORN (2013)

	30 MONTH CALVING		24 MONTH CALVING	
	Physical	Financial £	Physical	Financial £
Value of heifer (allowing for barreners and rejects)		1400		1400
<b>Less</b> value of calf (plus 2% mortality allowance)		250		250
<b>OUTPUT PER HEIFER</b>		<b>1150</b>		<b>1150</b>
Calf rearing costs to 3 months		91		91
<b>4-6 months</b> (indoors)		£		
Concentrates (17% protein)	125 kg	@270	34	250 kg
Silage	0.7 tonnes	@19.99	14	0.7 tonnes
Bedding straw	0.15 tonnes		12	0.15 tonnes
Veterinary and miscellaneous			8	10
<b>7-12 months</b> (at grass)				
Concentrates (15% protein)	25 kg	@250	6	180 kg
Grazing	0.15 ha	@193	29	0.17 ha
Veterinary and miscellaneous			14	14
<b>13-18 months</b> (indoors)				
Barley and minerals	160 kg	@190	30	360 kg
Silage	5 tonnes	@19.99	100	4.5 tonnes
AI, Veterinary and miscellaneous			13	33
<b>19-24 months</b> (at grass)				
Grazing	0.21 ha	@193	41	0.23 ha
AI, Veterinary and miscellaneous			38	13
<b>25-30 months</b> (indoors)				
Barley and minerals	180 kg	@190	34	
Silage	6 tonnes	@19.99	120	
Veterinary and miscellaneous			5	
<b>Total Variable Costs</b>			<b>589</b>	<b>535</b>
<b>GROSS MARGIN PER HEIFER</b>			<b>561</b>	<b>615</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>			<b>802</b>	<b>1230</b>

## 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 pages 18 and 19.
- (3) Sensitivity analysis

### Change in gross margin (£)

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

### Change in gross margin (£)

		<b>24 month calving</b>	
		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 (2014)

	<b>27 MONTH CALVING</b>		<b>24 MONTH CALVING</b>		
	Physical	Financial £	Physical	Financial £	
Value of heifer (allowing for barreners and rejects)		1400		1400	
<b>Less</b> value of calf (plus 2% mortality allowance)		250		250	
<b>OUTPUT PER HEIFER</b>		<b>1150</b>		<b>1150</b>	
Calf rearing costs to 3 months		91		91	
<b>4-9 months</b> (at grass)		£			
Concentrates (17% protein)	100 kg	@270	27	180 kg	49
Grazing	0.14 ha	@193	27	0.15 ha	29
Veterinary and miscellaneous			14		14
<b>10-15 months</b> (indoors)					
Barley and minerals	360 kg	@190	68	405 kg	77
Silage	3.5 tonnes	@19.99	70	3.75 tonnes	75
Veterinary and miscellaneous			8		10
<b>16-21 months</b> (at grass)					
Barley and minerals	0 kg	@190	0	50 kg	10
Grazing	0.21 ha	@193	41	0.22 ha	42
AI, Veterinary and miscellaneous			38		34
<b>22-24 months</b> (indoors)					
Barley and minerals	25 kg	@190	5	135 kg	26
Silage	2.75 tonnes	@19.99	55	2.50 tonnes	50
Veterinary and miscellaneous			7		5
<b>25-27 months</b> (indoors)					
Barley and minerals	65 kg	@190	12		
Silage	2.75 tonnes	@19.99	55		
Veterinary and miscellaneous			7		
<b>Total Variable Costs</b>			<b>525</b>		<b>511</b>
<b>GROSS MARGIN PER HEIFER</b>			<b>625</b>		<b>639</b>
<b>GROSS MARGIN PER HECTARE @ (2 ce/ha)</b>			<b>1044</b>		<b>1278</b>

## 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 (£)

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

### Change in gross margin (£)

		<b>24 month calving</b>	
		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	<b>TYPICAL</b> £/head
Milk substitute	20	@ 1985	40
Concentrates (18% Protein)	85	@ 285	24
(17% Protein)	25	@ 270	7
Hay	20	@ 135	3
Bedding Straw	70	@ 80	6
Veterinary & sundries			18
<b>Total variable costs</b>			<b>97</b>

- (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 £91.
- (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 2014 born continental type calves)

		TYPICAL	HIGH
	kg(dwt)    p/kg	£/head	£/head
Finished Heifer	275 @ 320	880	880
<b>Less</b> Value of calf plus 2% mortality allowance		230	230
<b>OUTPUT</b>		<b>650</b>	<b>650</b>
Calf rearing costs to 3 months		91	91
<b>4-6 months (indoors)</b>	£/t		
Concentrates (17% protein)	2.0 to 1.0 kg/day @ 270	49	24
Silage	1.5 tonnes @ 19.99	30	30
Veterinary and miscellaneous		6	6
<b>7-12 months (at grass)</b>	£/t		
Concentrates (15% protein)	100 kg to 30 kg @ 250	25	8
	£/ha		
Grazing	0.15 ha @ 165	25	25
Veterinary and miscellaneous		8	8
<b>13-18 months (indoors)</b>	£/t		
Barley and minerals	4.3 to 2.0 kg/day @ 190	147	68
Silage	4.5 to 5 tonnes @ 19.99	90	100
Veterinary and miscellaneous		6	6
<b>Total variable costs</b>		<b>476</b>	<b>366</b>
<b>GROSS MARGIN PER HEAD</b>		<b>174</b>	<b>284</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>		<b>463</b>	<b>761</b>
Number of cattle finished per hectare		3.3	3.2
Interest charge per head (@ 4%)		28	25

- (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.

(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 2014 born continental type calves)

			<b>TYPICAL</b>	<b>HIGH</b>
	kg(dw t)	p/kg	£/head	£/head
Finished steer	320	@ 320	1024	1024
<b>Less</b> Value of calf plus 2% mortality allowance			280	280
<b>OUTPUT</b>			<b>744</b>	<b>744</b>
Calf rearing costs to 3 months			97	97
<b>4-6 months (indoors)</b>		£/t		
Concentrates (17% protein)	2.5 to 1.0	kg/day @ 270	61	24
Silage	1.2	tonnes @ 19.99	24	24
Veterinary and miscellaneous			6	6
<b>7-12 months (at grass)</b>		£/t		
Concentrates (15% protein)	110 kg	to 40 kg @ 250	28	10
		£/ha		
Grazing	0.15	ha @ 165	25	25
Veterinary and miscellaneous			8	8
<b>13-18 months (indoors)</b>		£/t		
Concentrates (15% protein)	2.0 to 0.5	kg/day @ 250	90	23
Silage	4.5 to 5	tonnes @ 19.99	90	100
Veterinary and miscellaneous			6	6
<b>19-22 months (at grass)</b>		£/t		
Barley and minerals	130 kg	to 60 kg @ 190	25	11
		£/ha		
Grazing	0.17	ha @ 165	28	28
Veterinary and miscellaneous			7	7
<b>Total variable costs</b>			<b>494</b>	<b>369</b>
<b>GROSS MARGIN PER HEAD</b>			<b>250</b>	<b>375</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>520</b>	<b>782</b>
Number of cattle finished per hectare			2.2	2.1
Interest charge per head (@ 4%)			39	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 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).
- (3) Weight at 3 Months: 120 kg lwt.

<b>Daily liveweight gain (kg)</b>	
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 (£)

	<b>Quality of silage</b>			
	<b>MEDIUM</b>		<b>GOOD</b>	
	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 2014 born continental type calves)

		<b>TYPICAL</b>	<b>HIGH</b>
	kg(dw t)    p/kg	£/head	£/head
Finished steer	335 @ 330	1106	1106
<b>Less</b> Value of calf plus 2% mortality allowance		280	280
<b>OUTPUT</b>		<b>826</b>	<b>826</b>
Calf rearing costs to 3 months		97	97
<b>4-9 months (at grass)</b>	£/t		
Concentrates (15% protein)	100 to 50 kg @ 250	25	13
	£/ha		
Grazing	0.11 ha @ 165	18	18
Veterinary and miscellaneous		8	8
<b>10-15 months (indoors)</b>	£/t		
Concentrates (15% protein)	1.8 to 0.5 kg/day @ 250	81	23
Silage	4 to 4.5 tonnes @ 19.99	80	90
Veterinary and miscellaneous		5	5
<b>16-21 months (at grass)</b>	£/ha		
Grazing	0.20 ha @ 165	33	33
Veterinary and miscellaneous		8	8
<b>22-24 months (indoors)</b>	£/t		
Barley and minerals	6.7 to 3.0 kg/day @ 190	115	51
Silage	2.75 to 3.0 tonnes @ 19.99	55	60
Veterinary and miscellaneous		4	4
<b>Total variable costs</b>		<b>529</b>	<b>409</b>
<b>GROSS MARGIN PER HEAD</b>		<b>297</b>	<b>416</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>		<b>534</b>	<b>749</b>
Number of cattle finished per hectare		2.09	2.0
Interest charge per head (@ 4%)		44	39

## 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.

<b>Daily liveweight gain (kg)</b>	
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 (£)

	<b>Quality of silage</b>			
	<b>MEDIUM</b>		<b>GOOD</b>	
	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 2014 born continental type calves)

			<b>TYPICAL</b>	<b>HIGH</b>
	kg(dw t)	p/kg	£/head	£/head
Finished steer	365	@ 330	1,205	1,205
<b>Less</b> Value of calf plus 2% mortality allowance			280	280
<b>OUTPUT</b>			<b>925</b>	<b>925</b>
Calf rearing costs to 3 months			97	97
<b>4-5 months (at grass)</b>		£/t		
Concentrates (17% Protein)	60 to 30 kg	@ 270	16	8
		£/ha		
Grazing	.04 ha	@ 165	7	7
Veterinary and miscellaneous			8	8
<b>6-11 months (indoors)</b>		£/t		
Concentrates (15% Protein)	2 to 1 kg/day	@ 250	90	45
Silage	3 to 4 tonnes	@ 19.99	60	80
Veterinary and miscellaneous			5	5
<b>12-17 months (at grass)</b>		£/ha		
Grazing	0.16 ha	@ 165	26	26
Veterinary and miscellaneous			8	8
<b>18-23 months (indoors)</b>		£/t		
Concentrates (15% Protein)	2 to 1 kg/day	@ 260	94	47
Silage	5 to 5.5 tonnes	@ 19.99	100	110
Veterinary and miscellaneous			5	5
<b>24-28 months (outdoors)</b>		£/ha		
Grazing	0.25 ha	@ 165	41	41
Veterinary and miscellaneous			8	8
<b>Total variable costs</b>			<b>565</b>	<b>495</b>
<b>GROSS MARGIN PER HEAD</b>			<b>360</b>	<b>429</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>514</b>	<b>614</b>
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)

	kg(dwt)	p/kg	<b>TYPICAL</b>
			£ /head
Finished Bull	260	@ 300	780
<b>Less</b> Value of calf plus 2% mortality allowance			80
<b>OUTPUT</b>			<b>700</b>
Calf rearing costs to 3 months			97
<b>4-13 months</b>		£/t	
Concentrates (13-15% Protein)	2 tonnes	@ 250	500
Straw			18
Veterinary and miscellaneous			30
<b>Total variable costs</b>			<b>645</b>
<b>GROSS MARGIN PER HEAD</b>			<b>55</b>
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) 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 (£)**

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



## GRASS SILAGE BULL BEEF

(Born spring 2014 continental type calves)

			TYPICAL	HIGH
	kg(dwt)	p/kg	£/head	£/head
Finished Bull	325	@ 320	1,040	1,040
<b>Less</b> Value of calf plus 2% mortality allowance			280	280
<b>OUTPUT</b>			<b>760</b>	<b>760</b>
Calf rearing costs to 3 months			97	97
<b>4-6 months</b>		£/t		
Concentrates (17% Protein)	0.5 to 0.3 tonnes	@ 270	135	81
Silage	0.5 to 1.0 tonnes	@ 19.99	10	20
Veterinary and miscellaneous			12	12
<b>7-14 months</b>				
Concentrates (15% Protein)	1.4 to 0.9 tonnes	@ 250	350	225
Silage	5.0 to 6.0 tonnes	@ 19.99	100	120
Veterinary and miscellaneous			17	17
 			-----	-----
<b>Total variable costs</b>			<b>721</b>	<b>572</b>
 			-----	-----
<b>GROSS MARGIN PER HEAD</b>			<b>39</b>	<b>188</b>
<b>GROSS MARGIN PER HECTARE @ 2 ce/ha</b>			<b>130</b>	<b>470</b>
Number of cattle finished per hectare			6.7	5.0
Interest charge per head (@ 4%)			30	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



## LOWLAND SUCKLER COWS - MAY/JUNE CALVING (2014)

				TYPICAL
	sold per cow	kg(lwt)	£/100kg	£/head
Calves	0.94	@ 320	@ 190	572
<b>Less</b> herd replacement cost				57
calf purchases	0.06			17
<b>OUTPUT</b>				<b>498</b>
Concentrates - cow & calf		150 kg	@ 190	29
Grazing		0.31 ha	@ 165	51
Silage - cow		8 tonnes	@ 19.99	160
- calf		2.5 tonnes	@ 19.99	50
Veterinary and miscellaneous				50
<b>Total Variable Costs</b>				<b>340</b>
<b>GROSS MARGIN PER COW</b>				<b>159</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>				<b>252</b>

(1) Calves weaned during March/April (10 months old) at a liveweight between 300 and 340 kg. 0.92 calves born per cow and 4 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	15	24
± 0.1 calves sold per cow	61	97

## LOWLAND SUCKLER COWS - FEBRUARY/MARCH CALVING (2014)

	sold per cow	kg(lwt)	£/100kg	<b>TYPICAL</b>
				£/head
Calves	0.94 @	270 @	190	482
<b>Less</b> herd replacement cost				57
calf purchases	0.06			17
<b>OUTPUT</b>				<b>409</b>
			£/t	
Concentrates - calf		50 kg @	270	14
- cow		50 kg @	190	10
			£/ha	
Grazing		0.30 ha @	165	50
			£/t	
Silage - cow		7 tonnes @	19.99	140
Veterinary and miscellaneous				55
<b>Total Variable Costs</b>				<b>267</b>
<b>GROSS MARGIN PER COW</b>				<b>141</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>				<b>240</b>

(1) Calves weaned during October. DLWG of 0.95 kg. 0.92 calves born per cow and 4 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	51	87

## LOWLAND SUCKLER COWS - SEPTEMBER/OCTOBER CALVING (2014)

### TYPICAL

	sold per cow	kg(lwt)	£/100kg	£/head
Calves	0.94	@ 280	@ 190	500
<b>Less</b> herd replacement cost				57
calf purchases	0.06			17
<hr/> <b>OUTPUT</b>				<b>427</b>
			£/t	
Concentrates - calf		150 kg	@ 270	41
- cow		200 kg	@ 190	38
			£/t	
Silage - cow		8 tonnes	@ 19.99	160
- calf		1 tonnes	@ 19.99	20
			£/ha	
Grazing		0.28 ha	@ 165	46
Veterinary and miscellaneous				60
<b>Total Variable Costs</b>				<hr/> <b>365</b>
<hr/> <b>GROSS MARGIN PER COW</b>				<b>62</b>
<hr/> <b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>				<b>102</b>

(1) Calves weaned during June. DLWG of 0.95 kg. 0.92 calves born per cow and 4 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	13	22
± 0.1 calves sold per cow	53	87

## HILL SUCKLER COWS - SPRING CALVING (2014)

	sold per cow	kg(lwt)	£/100kg	<b>TYPICAL</b> £/head
Calves	0.94 @	230	@ 190	411
<b>Less</b> herd replacement cost				55
calf purchases	0.06			17
<hr/> <b>OUTPUT</b>				<b>339</b>
		kg	£/t	
Barley and minerals		110 @	190	21
Grazing				33
		tonnes	£/t	
Silage		6 @	19.99	120
Veterinary and miscellaneous				50
<b>Total Variable Costs</b>				<hr/> <b>224</b>
<hr/> <b>GROSS MARGIN PER COW</b>				<hr/> <b>115</b>

(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	44

**BEEF HEIFER REPLACEMENTS - SPRING BORN 2014  
24 MONTH CALVING**

**TYPICAL**

		£/head
Value of heifer (allowing for barreners & rejects)		1050
<b>Less</b> Value of calf plus 2% mortality allowance		<b>260</b>
<hr/> <b>OUTPUT</b>		<hr/> <b>790</b>
Calf rearing costs to 3 months		91
<b>4-9 months (at grass)</b>		£/t
Concentrates (17% protein)	20 kg @ 270	5
		£/ha
Grazing	0.11 ha @ 165	18
Veterinary and miscellaneous		11
<b>10-15 months (indoors)</b>		£/t
Barley and minerals	400 kg @ 190	76
Silage	4.5 tonnes @ 19.99	90
Veterinary and miscellaneous		8
<b>16-21 months (at grass)</b>		
Grazing	0.19 ha @ 165	31
AI Bull charges, veterinary and miscellaneous		30
<b>22-24 months (indoors)</b>		£/t
Barley and minerals	40 kg @ 190	8
Silage	3 tonnes @ 19.99	60
Veterinary and miscellaneous		3
 <b>Total variable costs</b>		<hr/> <b>431</b>
<hr/> <b>GROSS MARGIN PER HEAD</b>		<hr/> <b>359</b>
<hr/> <b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>		<hr/> <b>633</b>

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

360-380 kg at 15 months

560-580 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
<u>±</u> £10 in heifer values	10	18
<u>±</u> £10 in calf prices	10	18

## FINISHING SUCKLED STEER CALVES

(Purchased Autumn 2014)

**TYPICAL**

	kg (dwt)    p/kg	£/head
Sale of finished steer	360 @ 335	1,206
	kg (lwt)    £/100 kg	
<b>Less</b> Value of calf plus 2% mortality allowance	265 @ 200	530
<b>OUTPUT</b>		<b>676</b>
<b>9-14 months</b> (indoors)	£/t	
Concentrates (17% Protein)	2.0 kg/day @ 270	97
Silage	3.5 tonnes @ 19.99	70
Veterinary and miscellaneous		9
<b>15-20 months</b> (at grass)	£/t	
Barley and minerals	40 kg @ 190	8
	£/ha	
Grazing	0.19 ha @ 165	31
Veterinary and miscellaneous		10
<b>21-24 months</b> (indoors)		
Barley and minerals	6 kg/day @ 190	137
Silage	3 tonnes @ 19.99	60
Veterinary and miscellaneous		9
<b>Total variable costs</b>		<b>431</b>
<b>GROSS MARGIN PER HEAD</b>		<b>245</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>		<b>599</b>
Interest charge per head (@ 4%)		37

(1) Continental calves born during the spring 2014, 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

## FINISHING SUCKLED STEER CALVES (CONTINUED)

(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 (2014/2015) STEER FINISHING  
400 KG STORE**

	kg (dwt)		p/kg	<b>TYPICAL</b> £/head
Sale of finished steer	340	@	330	1,122
	kg(lwt)		p/kg	
<b>Less Purchase</b>	400	@	195	780
<b>OUTPUT</b>				<b>342</b>
			£/t	
Barley and minerals	4 kg/day	@	190	175
Silage	7 tonnes	@	19.99	140
Veterinary and miscellaneous				9
<b>Total Variable Costs</b>				<b>324</b>
<b>GROSS MARGIN PER HEAD</b>				<b>18</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>				<b>87</b>
Interest charge per head (@ 4%)				24

- (1) Continental cross steers purchased during the autumn of 2014 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)				
	180	190	200	210	220
<b>300</b>	-24	-64	-104	-144	-184
<b>320</b>	44	4	-36	-76	-116
<b>340</b>	112	72	32	-8	-48
<b>360</b>	180	140	100	60	20
<b>380</b>	248	208	168	128	88

**WINTER (2014/2015) STEER FINISHING  
500 KG STORE**

	kg(dwt)	p/kg	TYPICAL £/head
Sale of finished steer	360	@ 330	1,188
<b>Less Purchase</b>	500	@ 190	950
<b>OUTPUT</b>			<b>238</b>
		£/t	
Barley and minerals	4 kg/day	@ 190	114
Silage	5 tonnes	@ 19.99	100
Veterinary and miscellaneous			9
<b>Total Variable Costs</b>			<b>223</b>
<b>GROSS MARGIN PER HEAD</b>			<b>15</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>110</b>
Interest charge per head (@ 4%)			17

(1) Continental cross steers. Purchased during the autumn 2014 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)				
	170	180	190	200	210
<b>300</b>	7	-43	-93	-143	-193
<b>320</b>	79	29	-21	-71	-121
<b>340</b>	151	101	51	1	-49
<b>360</b>	223	173	123	73	23
<b>380</b>	295	245	195	145	95

**SUMMER STEER FINISHING 2014  
420 KG STORE**

	kg(dwt)	p/kg	<b>TYPICAL</b> £/head
Sale of finished steer	320 @	325	1,040
<b>Less Purchase</b>	420 @	200	840
<b>OUTPUT</b>			<b>200</b>
		£/t	
Barley and Minerals	20 kg @	190	4
		£/ha	
Grazing	0.25 ha @	165	41
Veterinary and miscellaneous			10
<b>Total Variable Costs</b>			<b>55</b>
<b>GROSS MARGIN PER HEAD</b>			<b>145</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>870</b>
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 2014 and grazed for 180 days with a daily liveweight gain of 0.9 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)				
	190	200	210	220	230
<b>300</b>	107	65	23	-19	-61
<b>320</b>	171	129	87	45	3
<b>340</b>	235	193	151	109	67
<b>360</b>	299	257	215	173	131
<b>380</b>	363	321	279	237	195

## 'TRADITIONAL' STORE TO BEEF SYSTEM

(Purchased October 2014)

	kg(dwt)	p/kg	<b>TYPICAL</b>
			£/head
Sale of finished steer	350	@ 325	1,138
	kg(lwt)	£/100kg	
<b>Less Purchase</b>	360	@ 195	702
<b>OUTPUT</b>			<b>436</b>
		£/t	
Barley and minerals	300 kg	@ 190	57
Silage	5.5 tonnes	@ 19.99	110
		£/ha	
Grazing	0.22 ha	@ 165	36
Veterinary and miscellaneous			20
<b>Total Variable Costs</b>			<b>223</b>
<b>GROSS MARGIN PER HEAD</b>			<b>212</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>636</b>
Interest charge per head (@ 4%)			32

- (1) Continental cross steers. Purchased during October 2014 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 2014

			TYPICAL
	kg(lwt)	£/100kg	£/head
Sale of store steer	450 @	195	878
<b>Less</b> Purchase	300 @	205	615
<b>OUTPUT</b>			<b>263</b>
£/t			
Barley and minerals	40 kg @	190	8
£/ha			
Grazing	0.18 ha @	165	30
Veterinary and miscellaneous			12
<b>Total Variable Costs</b>			<b>49</b>
<b>GROSS MARGIN PER HEAD</b>			<b>213</b>
<b>GROSS MARGIN PER HECTARE @ 1.8 ce/ha</b>			<b>1,277</b>
Interest charge per head (@ 4%)			13

- (1) Continental cross steer purchased during the Spring 2014 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 1.67 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)				
		190	200	210	220	230
Sale price (pence per per kg (lwt))	180	191	161	131	101	71
	190	236	206	176	146	116
	200	281	251	221	191	161
	210	326	296	266	236	206
	220	371	341	311	281	251



## LOWLAND BREEDING EWES - MID MARCH LAMBING

	kg	p/kg	£	£	£
Lambs (no.) sold finished	21 @	380	(1.20)	96	(1.40) 112 (1.60) 128
Wool					4
<b>Less Flock replacement cost</b>					14
<b>OUTPUT</b>				<b>86</b>	<b>102</b> <b>118</b>
	kg	£/t			
Concentrates	60 @	270			16
Grassland (including hay/silage)					24
Veterinary and miscellaneous					15
<b>Total Variable Costs</b>					<b>55</b>
<b>GROSS MARGIN PER EWE</b>				<b>31</b>	<b>47</b> <b>63</b>
<b>GROSS MARGIN PER HECTARE @ 1.6 ce/ha</b>				<b>248</b>	<b>376</b> <b>504</b>

(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 8 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 £90 and culls sold at £55. Rams purchased at £310 and sold after 3 years at £70.
- (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 (£)

	<b>TYPICAL</b>	
	per ewe	per hectare
± 0.1 in lambs reared per ewe	8.0	64
± 10p/kg in sale value	2.9	24
± £20/t in concentrate price	1.2	10

**LOWLAND BREEDING EWES  
EARLY (DECEMBER/JANUARY) LAMBING**

				<b>LOW</b>	<b>TYPICAL</b>	<b>HIGH</b>
	kg	p/kg		£	£	£
Lambs (no.) sold finished	21	@ 420	(1.05)	93	(1.30) 115	(1.45) 128
Wool					4	
<b>Less</b> Flock replacement cost					14	
<b>OUTPUT</b>				<b>83</b>	<b>105</b>	<b>118</b>
	kg	£/t				
Concentrates - ewe	70	@ 270			19	
lambs	35	@ 260			9	
Grazing and hay/silage					28	
Veterinary and miscellaneous					18	
<b>Total Variable Costs</b>					<b>74</b>	
<b>GROSS MARGIN PER EWE</b>				<b>9</b>	<b>31</b>	<b>44</b>
<b>GROSS MARGIN PER HECTARE @ 2.2 ce/ha</b>				<b>100</b>	<b>343</b>	<b>488</b>

(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 11 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 £90 and culls sold at £55.

Rams purchased at £310 and sold after 3 years at £70.

(5) With this production system, housing is normally required at lambing.

Approximately 0.10 to 0.15 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 (£)**

	<b>TYPICAL</b>	
	per ewe	per hectare
± 0.1 in lambs reared per ewe	8.8	97
± 10p/kg in sale value	2.7	30
± £20/t in concentrate price	2.1	23

## UPLAND BREEDING EWES - CROSSBRED TYPE IN SDA

		LOW	TYPICAL	HIGH
		£	£	£
	kg @ p/kg			
Lambs sales (no.)	21 @ 370	(0.74)	57 (0.98)	76 (1.12)
	16 @ 370	(0.31)	18 (0.42)	25 (0.48)
Wool			4	
<b>Less</b> Flock replacement cost			14	
<b>OUTPUT</b>		<b>66</b>	<b>92</b>	<b>106</b>
	kg @	£/t		
Concentrates	65 @	270	18	
Grazing and hay			24	
Veterinary and miscellaneous			15	
<b>Total Variable Costs</b>			<b>57</b>	
<b>GROSS MARGIN PER EWE</b>		<b>10</b>	<b>35</b>	<b>49</b>

- (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 £90 each and culls sold at £55 each. Rams purchased at £310 each and sold after 3 years for £70.
- (4) Sensitivity analysis

### Change in gross margin(£)

	<b>TYPICAL</b>
	per ewe
± 0.1 in lambs reared per ewe	7.2
± 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 @	360	(0.21)	15	(0.27)	19	(0.33)	24
	14 @	360	(0.49)	25	(0.63)	32	(0.77)	39
		£/head						
Cull ewes	0.18 @	45				8		
Wool						3		
<b>Less</b> Flock replacement cost						3		
<b>OUTPUT</b>			<b>48</b>	<b>60</b>		<b>71</b>		
	kg	£/t						
Concentrates	55 @	270				15		
Grazing						18		
Veterinary and miscellaneous						15		
<b>Total Variable Costs</b>						<b>48</b>		
<b>GROSS MARGIN PER EWE</b>			<b>0</b>	<b>12</b>		<b>23</b>		

- (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 £310 each and sold after 3 years for £60
- (5) Ewe mortality of 7% per annum.
- (6) Sensitivity analysis

### Change in gross margin (£)

	<b>TYPICAL</b>
	per ewe
± 0.1 in lambs reared per ewe	5.7
± 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	@ 370	78
<b>Less</b> lamb purchase	16	@ 360	58
<hr/> <b>OUTPUT (feeder's margin)</b>			<b>20</b>
Grazing			3
Veterinary and miscellaneous			2
<b>Total Variable Costs</b>			<hr/> <b>5</b>
<hr/> <b>GROSS MARGIN PER LAMB</b>			<hr/> <b>15</b>

- (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	@ 370	78
<b>Less</b> lamb purchase	14	@ 360	50
<hr/> <b>OUTPUT (feeder's margin)</b>			<b>27</b>
	kg	£/tonne	
Concentrates	45	@ 260	12
Grazing			5
Veterinary and miscellaneous			2
<b>Total Variable Costs</b>			<hr/> <b>19</b>
<hr/> <b>GROSS MARGIN PER LAMB</b>			<hr/> <b>9</b>

- (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	2.60

## STORE LAMB (14 kg) FINISHED ON FORAGE CROPS

	kg (halfweight)	TYPICAL
	kg    p/kg	£
Lamb sale	21 @ 375	79
<b>Less</b> lamb purchase	14 @ 360	50
<hr/> <b>OUTPUT (feeder's margin)</b>		<hr/> <b>28</b>
	kg/day    £/tonne    days	
Concentrates	0.2 @ 260    125	7
	p/day @	
Grazing	7.8 @ 100	8
Veterinary and miscellaneous		2
<b>Total Variable Costs</b>		<hr/> <b>16</b>
<hr/> <b>GROSS MARGIN PER LAMB</b>		<hr/> <b>12</b>

- (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 £350 per hectare or 7.8 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 £320 per hectare or 12.8 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 @ 385	85
<b>Less</b> lamb purchase	15 @ 355	53
<b>OUTPUT (feeder's margin)</b>		<b>31</b>
	kg    £/tonne	
Concentrates	100 @ 260	26
Veterinary and miscellaneous (including fodder)		3
<b>Total Variable Costs</b>		<b>29</b>
<b>GROSS MARGIN PER LAMB</b>		<b>2</b>

- (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	1.00
+ 10 kg in concentrate use	2.60

## PIG REARING

		LOW	TYPICAL	HIGH
		£	£	£
Sales (no.) of 39 kg weaners	@ 50	(19.0) 950	(22.0) 1,100	(24.0) 1,200
	number    £/head			
<b>Plus</b> cull sows	0.40 @ 120		48	
<b>Less</b> boar charge			3	
<b>OUTPUT</b>		<b>995</b>	<b>1,145</b>	<b>1,245</b>
		£/t		
Sow meal - Dry sow	250	222	232	230
- Lactating Sow	270	129	135	134
Creep and link feeds	525	150	173	189
Grower feed	295	252	292	319
A.I. Costs		26	26	26
Veterinary and miscellaneous		70	70	70
<b>Total Variable Costs</b>		<b>849</b>	<b>929</b>	<b>968</b>
<b>GROSS MARGIN PER SOW</b>		<b>146</b>	<b>216</b>	<b>277</b>
<b>GROSS MARGIN PER WEANED PIG</b>		<b>7.7</b>	<b>9.8</b>	<b>11.6</b>

- (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	19	22	24
Meal consumption per weaner (kg)			
Sow meal (Dry sow)	47	42	38
Sow meal (Lactating sow)	25	23	21
Creep & link feeds	15	15	15
Grower feed	45	45	45
<b>Total feed</b>	<b>132</b>	<b>125</b>	<b>119</b>

- (3) A.I. Costs - semen cost £5 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 95 for a breakdown of fixed costs**

	Change in gross margin (£ per sow)		
	LOW	TYPICAL	HIGH
+ £1 in sale price	19	22	24
+ £5 in average feed price	13	14	14

## PIG FINISHING

	kg (dwt)	p/kg	<b>TYPICAL</b>
Sale	86	@ 150	£ 129
<b>Less purchase</b>	kg (lwt) 39		<b>50</b>
<hr/> <b>OUTPUT</b>			<hr/> <b>79</b>
Finisher feed	kg 185	£/t @ 255	47
Veterinary and miscellaneous			4
<b>Total variable cost</b>			<b>52</b>
<hr/> <b>GROSS MARGIN PER PIG</b>			<hr/> <b>27</b>

(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 95 for a breakdown of fixed costs**

(5) Sensitivity analysis

### Change in gross margin

	£ per pig
± 1p/kg in sale price	0.86
± £5/tonne in average feed price (FCR 2.7:1)	0.93

## PIG REARING AND FINISHING

		LOW	TYPICAL	HIGH
		£	£	£
Sales of pigs (no.) @	kg (dwt) p/kg 86 @ 150	(20) 2,580	(23) 2,967	(26) 3,354
<b>Plus</b> cull sows	Number £/head 0.40 @ 120		48	
<b>Less</b> boar charge			3	
<b>OUTPUT</b>		<b>2,625</b>	<b>3,012</b>	<b>3,399</b>
	£/t			
Sow meal - Dry sow	250	224	232	241
- Lactating Sow	270	130	135	140
Creep & link feeds	525	158	181	205
Grower feed	295	401	448	491
Finisher feed	255	918	997	1094
A.I. Costs		26	26	26
Veterinary and miscellaneous		140	140	140
<b>Total Variable Costs</b>		<b>1,997</b>	<b>2,158</b>	<b>2,336</b>
<b>GROSS MARGIN PER SOW</b>		<b>628</b>	<b>854</b>	<b>1,063</b>
<b>GROSS MARGIN PER FINISHED PIG</b>		<b>31.38</b>	<b>37.11</b>	<b>40.87</b>

- (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) It is assumed high performing herds have better FCR than low performing herds
- (5) A.I. Costs - semen cost £5 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	20.0	23.0	26.0

	LOW	TYPICAL	HIGH
Meal consumption per finished pig (kg)			
Sow meal (Dry sow)	45	40	37
Sow meal (Lactating sow)	24	22	20
Creep & link feed	15	15	15
Grower feed	68	66	64
Finisher feed	180	170	165
<b>Total feed</b>	<b>332</b>	<b>313</b>	<b>301</b>

## PIG REARING AND FINISHING (CONTINUED)

- (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 95 for a breakdown of fixed costs**
- (6) Sensitivity analysis

### Change in gross margin

Change	£ per sow		
	LOW	TYPICAL	HIGH
± 1p/kg in sale price	17.2	19.8	22.4
± £5/tonne in average feed price	33	36	39

## ENRICHED CAGED LAYING HENS

PER HEN HOUSED	TYPICAL pence/dozen	GOOD pence/dozen
Sales	74.00	74.00
<b>Less pullet</b>	13.50	13.25
<b>OUTPUT</b>	<b>60.50</b>	<b>60.75</b>
Concentrates @244/t	42.19	39.63
Miscellaneous	3.00	2.92
<b>Total Variable Costs</b>	<b>45.19</b>	<b>42.55</b>
<b>GROSS MARGIN PER DOZEN (penc)</b>	<b>15.31</b>	<b>18.21</b>
<b>GROSS MARGIN PER BIRD (£)</b>	<b>4.13</b>	<b>5.10</b>

(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	115	6
Good production	28	112	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	0.23	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	98.00	98.00
<b>Less pullet</b>	14.00	13.49
<b>OUTPUT</b>	<b>84.00</b>	<b>84.51</b>
Concentrates @£255/t	50.11	46.19
Miscellaneous	6.00	5.81
<b>Total Variable Costs</b>	<b>56.11</b>	<b>52.00</b>
<b>GROSS MARGIN PER DOZEN (pence)</b>	<b>27.89</b>	<b>32.51</b>
<b>GROSS MARGIN PER BIRD (£)</b>	<b>6.97</b>	<b>8.45</b>

(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	121	10
Good production	26	116	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

	kg	p/kg	<b>TYPICAL</b>
			pence/bird
Sales	2.15	@ 86.05	185.01
	No.	£/100	
<b>Less</b> Day Old Chicks	1.03	@ 33.75	34.76
<b>OUTPUT</b>			<b>150.25</b>
	kg	£/t	
Concentrates	3.66	@ 330	120.78
Miscellaneous			15.54
<b>Total Variable Costs</b>			<b>136.32</b>
<b>MARGIN PER BIRD (pence)</b>			<b>13.93</b>
<b>MARGIN PER 1,000 BIRDS (£)</b>			<b>139.25</b>

- (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. 1.68:1
- (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

	<b>Change in gross margin</b>	
	per bird (p)	per 1,000 birds (£)
+ 1p/kg in sale price	2.15	21.50
+ £5/t in concentrate price	1.83	18.30
+ 0.01 in FCR	0.72	7.19

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



## **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, and have been issued with a Category 1 Business ID\*, 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.

\*There are three categories of Business ID but only Category 1 enables the farm business to hold payment entitlements and submit a Single Application Form (SAF).

### **SFP Payment Entitlements**

If a farm business did not establish entitlements in 2005 and now 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 Category 1 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 (this was extended until 2 May 2014 for 2014 trading year to allow farm businesses to make decisions in relation to changes proposed under CAP Reform planned for 2015 year and beyond). A guidance booklet on the transfer of entitlements is available on request from the Trading Section, Single Farm Payment Branch, Orchard House.

In 2014, 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.

## **2014 Scaleback on SFP Entitlements**

The EU has introduced some transitional provisions in 2014 until CAP reform is implemented in 2015.

Under these transitional arrangements a reduction is required to the unit face value of all SFP entitlements held in 2014. The reduction is estimated to be 9.25%, but the precise reduction will be confirmed later in 2014.

This reduction is necessary as a result of reductions in the EU Budget and the permanent transfer of what was previously compulsory modulation to rural development. Businesses will be written to when the reduction has been confirmed to notify of the new unit value of SFP entitlements.

Further information can be found at:

<http://www.dardni.gov.uk/2014-scaleback-faqs.htm>

## **Applications**

Claims for payment of SFP Entitlements held by the farm business must be made each year on a 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.

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

DARD also offers a popular online application service. The online service for the 2014 scheme year was available from 3 March. 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](http://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-the-spot Checks**

A minimum of 5% of claims received each year are subject to an on-the-spot check 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. In addition, at least 1% (for some of the Cross-Compliance requirements there is a higher inspection rate set by EU law, for example, in the area of Cattle Identification and Registration) of all claims received are checked to verify compliance with Cross-Compliance standards (see below). 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 requirement, known as Cross Compliance, is made up 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.

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, minimum level of maintenance and the protection and management of water. 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.

A copy of the current Cross Compliance requirements is available on the DARD website at [www.dardni.gov.uk/cross-compliance-verifiable-standards](http://www.dardni.gov.uk/cross-compliance-verifiable-standards)

## **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 2013 year was €1 = 0.83605. 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**

For 2014, there will be no voluntary or compulsory modulation deducted from Single Farm Payments.

## **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 the Department’s website at [www.dardni.gov.uk/grants-and-funding](http://www.dardni.gov.uk/grants-and-funding)

Further information and advice on the Single Farm Payment Scheme can be obtained from Single Farm Payment Branch or local DARD offices on Telephone 0300 200 7848 (DARD Grants and Funding).

## **LESS FAVOURED AREA COMPENSATORY ALLOWANCES 2015**

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 2015 scheme is 01 April 2014 to 31 October 2014 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, breeding 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 2014 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 2015 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 using sustainable land management practices that enhance the environment. They are considered crucial in delivering Government's commitment to:

- Enhance biodiversity;
- Improve water quality.
- Enhance the landscape and heritage features;
- Reduce the impact of climate change

There are currently approx 10,000 participants in the DARD's agri-environment schemes, with 37% of the farmland area of Northern Ireland under agreement.

A new agri-environment scheme is currently being developed under the new NI Rural Development Programme 2014-2020. The proposed scheme will have three levels:

- A targeted level, primarily for designated sites.
- A wider level to deliver benefits across the countryside, outside of environmentally designated areas.
- A group level to support co-operative action by farmers in specific areas such as river catchment or commonages.

Agri-environment schemes that began during the previous NI Rural Development Programme (NIRDP) 2007-2013 are the Northern Ireland Countryside Management Scheme (NICMS) and the Organic Farming Scheme (OFS). These schemes are claimed annually on the Single Application Form each May.

The agri-environment schemes that commenced during the NI Rural Development Programme 2000-2006 are known as legacy schemes and include the Environmentally Sensitive Areas (ESA) Scheme, the Countryside Management Scheme (CMS) and the previous Organic Farming Scheme (OFS). These schemes use an annual claim form that is sent to the farmer around their scheme anniversary date.

### **(A) Northern Ireland Countryside Management Scheme (NICMS)**

NICMS was launched in June 2008 and currently has 1,527 participants from two application periods. Applications to the scheme were prioritised based on environmental criteria so that farms with land in designated sites such as Natura 2000 sites and Areas of Special Scientific Interest were top priority. Almost 50% of NICMS agreements have land in a designated site. NICMS is a whole farm scheme with agreements lasting for 7 years.

### **(B) Organic Farming Scheme (OFS)**

The Organic Farming Scheme assists farmers converting from conventional production methods to organic production. The scheme was originally launched in 1999 and was revised for the NIRDP 2007-2013. The 2009 application period saw 31 participants join OFS and a further 6 participants

joined in the 2012 application period. Agreements have a 5 year term and therefore the agreements which started in 2009 ended on 31 December 2013.

The land entered into OFS agreements must be registered with an approved Organic Sector Body and this Body ensures that farms approved as organic adhere to all the required standards.

### **(C) Legacy Agri-environment schemes**

Around 8,860 legacy schemes continue to make a positive contribution to the environment in Northern Ireland. There are 2,590 Environmental Sensitive Area (ESA) Scheme agreements and 6,270 Countryside Management Scheme (CMS) agreements. Legacy schemes have a whole farm agreement which lasts for 10 years from the anniversary date on which it was signed. Therefore the number of participants in these schemes continues to decline as agreements reach the end of their ten-year term.

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



## Forestry Grant Scheme

During the 2007 – 2013 Rural Development Programme Forest Service spent almost £10 million on forestry projects and supported over 1,400 hectares of new woodland planting.

It was necessary to close the Forestry Grant Scheme to new applicants in November 2013 and we are developing new schemes to support woodland planting and sustainable management of existing woodland in the 2014-2020 Rural Development Programme.

The Rural Development Programme 2014 – 2020 public consultation is available on the DARD website<sup>1</sup> and information on the new schemes will be made available on the DARD grants and funding website<sup>2</sup>. You can also contact Forest Service at Dundonald House, Upper Newtownards Road, Belfast, BT4 3SB, phone 028 9052 4870 or email [grants.forests@ardni.gov.uk](mailto:grants.forests@ardni.gov.uk) if you require additional information.

Existing agreement holders are not affected and payments scheduled under these agreements will continue as planned.

<sup>1</sup>[www.dardni.gov.uk/rural-development-programme-2014-2020-public-consultation.htm](http://www.dardni.gov.uk/rural-development-programme-2014-2020-public-consultation.htm)

<sup>2</sup>[www.dardni.gov.uk/grants-and-funding.htm](http://www.dardni.gov.uk/grants-and-funding.htm)

## **Nitrates and Phosphorus Regulations**

The Nitrates Action Programme Regulations (NAP) and the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 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 Regulations were first introduced on 1 January 2007 to meet Northern Ireland's legal and environmental obligations and 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. The first review was carried out in 2010 and some changes were made. A revised action programme is set out in the Nitrates Action Programme Regulations (Northern Ireland) 2010 and the Nitrates Action Programme (Amendment) Regulations (Northern Ireland) 2012 which update and replace the 2006 NAP Regulations.

A review of the 2011-2014 NAPs is now underway and due to be completed by December 2014.

The following is a summary of the current 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<sup>3</sup>/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<sup>3</sup>/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 and upward facing splash plates 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 Fertiliser Manual RB209.

### 5. Livestock Manure Nitrogen Limits

- 170kgNitrogen/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

- A minimum of 26 weeks livestock manure storage capacity for pig and poultry enterprises. A minimum of 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.
- Sufficient storage should be provided for dirty water for periods when conditions for land application are unsuitable.
- FYM storage:
  - FYM may be stored in middens with adequate effluent collection facilities.
  - From 1 January 2013, FYM may continue to be stored in field heaps where it is to be applied but for no longer than 120 days. FYM field heaps must not be located on land that is waterlogged, flooded or likely to flood.
- FYM 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.
- Poultry litter storage
  - Poultry litter may be stored in a midden prior to field storage or land application, provided that adequate effluent collection facilities are in place to capture run-off.
  - Poultry litter can be stored in a temporary field heaps subject to the following conditions:-
  - From 1 August 2012, storage of poultry litter in field heaps must be notified to and authorised by NIEA.
  - A field heap containing poultry litter must be compact and covered with an impermeable membrane within 24 hours of placement in the field.
  - The poultry litter must be spread at the time of next application on the field in which it is stored. The storage period must be no longer than 180 days.
  - Poultry litter heaps must not be stored within:
    - 100 metres of lakes; or
    - 40 metres of a waterway; or
    - 50 metres of a borehole, spring or well; or
    - 250 metres of a borehole used for a public water supply; or
    - 50 metres of exposed cavernous or karstified limestone features.

- Poultry litter must not be stored in the same location within a field year after year and must not be stored on land that is waterlogged, flooded or likely to flood.

## **7. Land Management**

- Comply with the measures relating to crop and soil management under the NAP Regulations 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 are 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](http://www.dardni.gov.uk) and [www.ni-environment.gov.uk](http://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 120&122.**

## AVERAGE FERTILISER PRICES 2013

		£ per tonne
C.A.N (27% N)		260
Urea (46% N)		352
Cereal fertiliser	18.14.14	350
	16.16.16	350
	15.15.17	370
Grassland fertiliser	20.10.10	339
	27.6.6	346
	27.4.4	322
	25.5.5	320
	25.0.5	290
	26.0.6	310
	27.0.6	310
Silage fertiliser	24.6.12	343
	22.4.14	345
	25.0.13	335
Ground limestone	(Collected)	12
	(Delivered and spread)	18

(1) All prices refer to the average net retail price charged to Northern Ireland farmers in the period January-October 2013.

(2) Figures used in the budgets in this publication are based on anticipated prices for 2014.

## FEEDINGSTUFF PRICES AT OCTOBER 2013

	% protein	£ per tonne
Dairy nuts	18	275
	20	290
Calf milk replacer (bags)	22	1985
Calf starter/weaner meal	18	285
Calf rearing nuts	17	270
Cattle fattening nuts	16	250
Sheep feed (bulk)	18	270
(bags)	18	300
Lamb feed	16	260
Pig creep pellets (bulk)	20	710
(bags)	20	730
Pig link/early grower	21	380
Pig grower/rearer meal	20	340
Pig fattening meal	19	320
Sow meal	18	320
Barley meal		190
Maize meal		210
Soya bean meal		395
Whole wheat		190
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 2014.

## 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.

<b>Feed</b>	<b>Relative Value</b>
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



<b>Feed</b>	<b>Relative Value</b>
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

	<b>EMCR £ per hectare</b>
Spring barley (6 months)	375
Spring oats (6 months)	331
Winter barley (10 months)	478
Winter oats (10 months)	420
Winter wheat (10 months)	551
Spring oilseed rape (6 months)	253
Winter oilseed rape (10 months)	427
Seed potatoes (6 months)	1,992
First early potatoes (6 months)	1,858
Maincrop ware potatoes (6 months)	2,035

### (b) Livestock Enterprises

	<b>Initial Capital</b>	<b>Variable Costs per livestock place</b>	<b>Total EMCR per livestock place</b>
	(1)	(2)	(3)
	(£)	(£)	(£)
Dairy cows (1 month)	1400	59 – 82	1459 – 1482
Dairy heifer replacements	250	505 – 586	755 – 836
18 month heifer beef	230	476	706
22 month steer beef	280	494	774
24 month steer beef	280	529	809
28 month steer beef	280	565	845
Cereal bull beef	80	645	725
Grass silage bull beef	280	721	1001
Calf to store system	280	328	608
Lowland suckler cows - May calving	1150	340	1490
- Feb calving	1150	267	1417
- Oct calving	1150	365	1515
Hill suckler cows	1000	224	1224
Beef heifer replacements	260	431	691
Finishing suckled calves	530	431	961
Winter cattle finishing 400kg (230 days)	780	324	1104
Winter cattle finishing 500kg (150 days)	950	223	1173
Summer cattle finishing 420kg (180 days)	840	55	895
Traditional store to beef system (12 mths)	702	223	925
Summer grazing of store cattle (6 mths)	615	49	664
Lowland breeding ewes - March lambing	90	55	145
Lowland breeding ewes - Dec lambing	90	74	164
Upland breeding ewes	90	57	147
Hill breeding ewes	90	48	138
Store lamb finishing (3-5 mths)	50 – 58	5 – 29	63 – 82

	<b>Initial Capital</b>	<b>Variable Costs Livestock per place</b>	<b>Total EMCR Livestock per place</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
	<b>(£)</b>	<b>(£)</b>	<b>(£)</b>
Pig rearing (per sow) (5mths)	140	387	527
Pig finishing (per pig) (3 mths)	50	52	102
Pig rearing/finishing (per sow) (6 mths)	140	1079	1219

- (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 2012/2013<sup>(1)</sup>**

<b>Dairy Farms</b>	Very Small	Small	Medium	Large
Area farmed (hectares) <sup>(2)</sup>	32	45	66	132
	£'s per Ha			
Conacre rent	35	47	66	124
Depreciation of buildings/work	81	140	198	205
Depreciation of machinery	132	154	212	164
Machinery running costs	191	199	209	206
Electricity and heating fuels	54	51	53	60
Building repairs	45	49	74	51
Misc. (inc. farm rates)	88	79	74	63
<b>Total</b>	<b>626</b>	<b>719</b>	<b>886</b>	<b>873</b>
<b>Cattle and Sheep Farms</b>	SDA	DA	LFA	Non-LFA
Area farmed (hectares) <sup>(2)</sup>	102	62	86	63
	£'s per Ha			
Conacre rent	28	32	29	76
Depreciation of buildings/work	39	82	52	54
Depreciation of machinery	69	114	82	144
Machinery running costs	85	138	100	149
Electricity and heating fuels	6	11	7	14
Building repairs	28	44	32	46
Misc. (inc. farm rates)	26	53	33	54
<b>Total</b>	<b>281</b>	<b>474</b>	<b>336</b>	<b>537</b>

<b>Other Farm Types</b>	Cereals	General Cropping	Mixed	Pigs
Area farmed (hectares) <sup>(2)</sup>	89	65	81	32
		£'s per Ha		£'s per £100 output
Conacre rent	47	147	56	1
Depreciation of buildings/work	77	32	81	3
Depreciation of machinery	326	288	229	2
Machinery running costs	267	324	193	3
Electricity and heating fuels	13	18	26	2
Building repairs	40	23	49	1
Misc. (inc. farm rates)	56	59	67	1
<b>Total</b>	<b>826</b>	<b>891</b>	<b>701</b>	<b>14</b>

### (1) Farm types

Dairying	Farms on which dairy cows account for more than two-thirds of the total Standard Output (SO).
Cattle and Sheep	Farms which do not qualify as Dairy farms but have more than two-thirds of total SO from cattle and sheep.
Cereals	Farms on which cereals and combinable crops account for more than two-thirds of the total SO.
General cropping	Farms which do not qualify as Cereal farms but have more than two-thirds of the total SO in arable crops (including field scale vegetables) or in a mixture of arable and horticultural crops where arable crops account for more than one-third of total SO and no other grouping accounts for more than one-third.
Pigs	Farms with more than two-thirds of total SO from pigs.
Mixed	Farms that have no dominant enterprise and do not fit into the above categories.

**(2) Area farmed** has been adjusted for conacre taken or let. Planning for 2014 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 2014

	4-Wheel drive				2-Wheel drive					
	120		100		80		90		80	
Horse power										
Initial Cost (£)	50,000		40,000		35,000		35,000		30,000	
	Per year	Per hour	Per year	Per hour	Per year	Per hour	Per year	Per hour	Per year	Per hour
Repairs	2,000	4	1,600	3.2	1,400	2.80	1,400	2.8	1,200	2.4
Depreciation (average charge)	4,270	8.54	3,420	6.84	2,990	5.98	2,990	5.98	2,560	5.12
Insurance	875	1.75	780	1.56	730	1.46	710	1.42	670	1.34
Fuel & Oil	5,865	11.73	5,175	10.35	4,140	8.28	4,830	9.66	3,795	7.59
<b>TOTAL</b>	<b>13,010</b>	<b>26.02</b>	<b>10,975</b>	<b>21.95</b>	<b>9,260</b>	<b>18.52</b>	<b>9,930</b>	<b>19.86</b>	<b>8,225</b>	<b>16.45</b>

- (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 69 pence per litre.
- (7) No interest or leasing charges have been included.

## NEW MACHINERY PRICES

Tractors (See Page 96)

	£		£
Pick-up	16,000 - 35,000	Plough	10,000 - 25,000
Quad (4WD Bike)	4,500 - 7,500	Harrow	2,000 - 3,000
Telescopic Loader	45,000 - 65,000	Power harrow	7,500 - 25,000
Skid-steer loader	15,000 - 25,000	Land roller	1,700 - 3,500
Slurry tanker	8,000 - 35,000	Land leveller	750 - 3,000
Slurry pump	2,700 - 6,000	Fertiliser sower	2,500 - 8,000
Manure rotaspreader	3,500 - 30,000	Crop sprayer	2,000 - 45,000
Yard scraper	750 - 1,250	Potato harvester	35,000 - 300,000
Mower conditioner	6,500 - 26,000	Box tipper	2,500 - 8,000
Precision chop harvester	25,000 - 45,000	Cattle trailer	3,000 - 7,000
Silage trailer	6,000 - 18,000	Link box	500 - 2,000
Buckrake	2,700 - 7,000	Welder	250 - 2,000
Bale spike	250 - 800	Compressor	200 - 1,500
Grass topper	2,000 - 4,800	Generator	800 - 3,250
Sheargrab	2,000 - 5,000	Power washer	350 - 2,800
Tractor loader	5,500 - 12,000	Hedge cutter	5,500 - 35,000
Silage feeding trailer	1,200 - 2,500	Chain saw	300 - 1,500
Diet feeder wagon	20,000 - 40,000	Bulk meal bin	1,800 - 5,000

## AGRICULTURAL CONTRACTORS' CHARGES

	Cost (£)	
<b>1. Cultivations</b>		
Ploughing - Lea	60 to 90	per hectare
- Stubble and other	60 to 80	"
Discing	25 to 32	per hour
Chain harrowing	20 to 25	"
Power harrowing	30 to 45	per hectare <b>or</b>
	30 to 32	per hour
Ground driven rotary harrowing	20	"
Springtine harrowing	20 to 30	"
Rotavating - Large types 100"	40 to 60	per hectare <b>or</b>
	30 to 40	per hour
Land Levelling	25	per hour
Rolling - Light	12 to 22	per hectare
- Heavy	18 to 25	"
Reseeding (Complete operation not including seed/fertiliser)	290 to 370	"
Shakerator	20 to 40	per hour
<b>2. Seeding and Planting</b>		
- combined drilling	25 to 35	per hectare
- precision seeding	45 to 60	"
- potato planting (automatic)	20 to 35	per hour
- direct drilling	50 to 55	per hectare
- one pass cultivation and drilling	50 to 65	"
- destoning	250 to 350	"
<b>3. Spraying and Spreading</b>		
Crop spraying (excluding chemicals)	15 to 40	per hectare
Fertiliser	15 to 30	per tonne
	10 to 15	per hectare
	20 to 30	per hour
Lime spreading	10 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 10	per 1000 gallons
Pumping and agitating (tanks)	25 to 35	per hour



	Cost (£)	
<b>4. Harvesting</b>		
Forage, including harvester, tractor and trailer		
- precision (complete operation)	150 to 190	per hectare
- precision (without buckraking)	120 to 160	"
- double chop (complete operation)	110 to 150	"
Forage wagon (without mowing / buckraking)	54 to 62	per hectare <b>or</b>
and diesel supplied by farmer	75 to 80	per hour
Silage wagon (complete operation)	110 to 165	per hectare
Buckraking into silo	20 to 30	"
Additional tractor and trailer for haulage	25 to 40	per hectare <b>or</b>
	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	"
Topping grass	20 to 35	"
Tedding, turning or raking	14 to 20	"
Pick-up baling - including twine	0.35 to 0.60	per small bale
- excluding twine	0.22 to 0.30	"
Big bale silage - round, chop, net and wrap	7 to 8.50	per bale
Big bale straw (round)	3.25 to 3.75	"
Big bale straw (large rectangular 8 x 4 x 3)	4.50 to 5.00	"
Combine harvesting	90 to 110	per hectare
Potato harvesting (ground destoned)	280 to 320	"
Forage Maize harvesting (complete operation)	180 to 220	"
<b>5. Grain Drying and rolling</b>		
Drying - Handling charge	2.00 to 2.50	per tonne
per 1% moisture removed,	3.00 to 4.50	"
Rolling	19 to 22	

	Cost (£)	
<b>6. Ditching and Field Drainage</b>		
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	25 to 30	"
Stoner	18 to 25	"
<b>7. Miscellaneous</b>		
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)	40-60	per call
Additional cows	5-10	per cow
Sheep shearing	1.30 to 1.60	per ewe
Sheep scanning	0.50 to 0.80	"
Fencing: assume strainers max 30m apart, and double strainers on corners		
5 rows of barbed wire		
- total cost	4.25 to 6.00	per metre
- labour only	1.20 to 2.00	"
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)		100	450
Rotavator (plus blades)		150	600
Land roller		40	170
Fertiliser sower		20 to 35	100 to 125
Crop sprayer		40	200
Lagoon mixer		25	70
Slurry pump		45	200
Rotary spreader	7.3 cu yard	50 to 100	200 to 500
Rear discharge manure spreader	9t to 10t	110	400
“ “	11t to 12t	140	500
Slurry tanker	2250 gall	75	300 to 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 to 15t	35 to 50	140 to 180
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
	12t	65	-
	14t	85	-
Post driver		40 to 60	200
Low loader		40 to 45	200
Grasseed sower		40	175
Weed wiper		40	175
Grass topper		50 to 55	250
Rush topper		75 to 90	375
Flail topper		100	500
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)

Year	Rate of interest %															
	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  $10 \times £174 = £1,740$

## LOAN OUTSTANDING

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

Year	Rate of interest %															
	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:

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

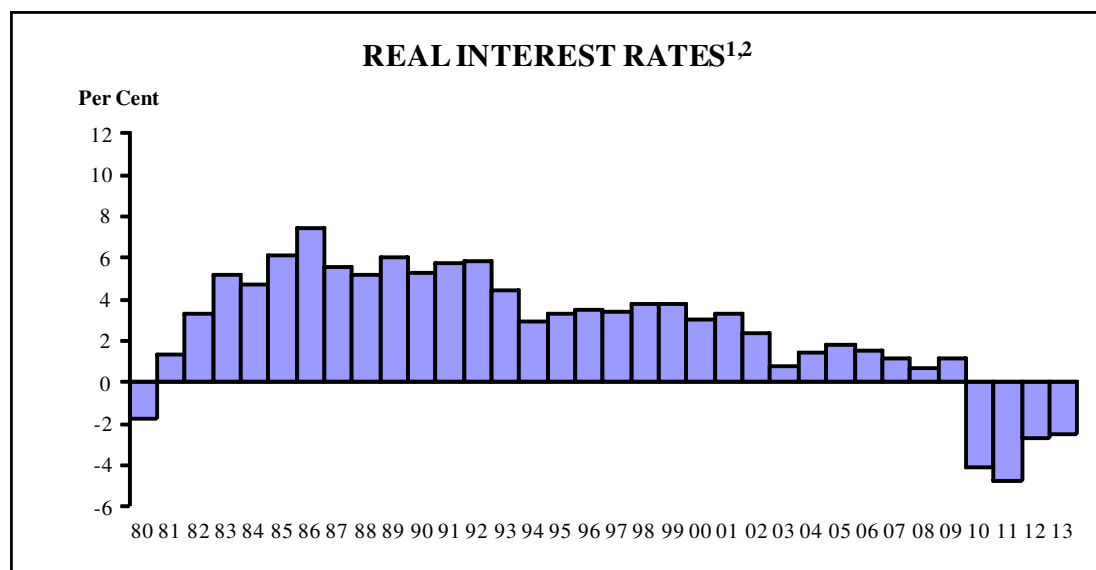
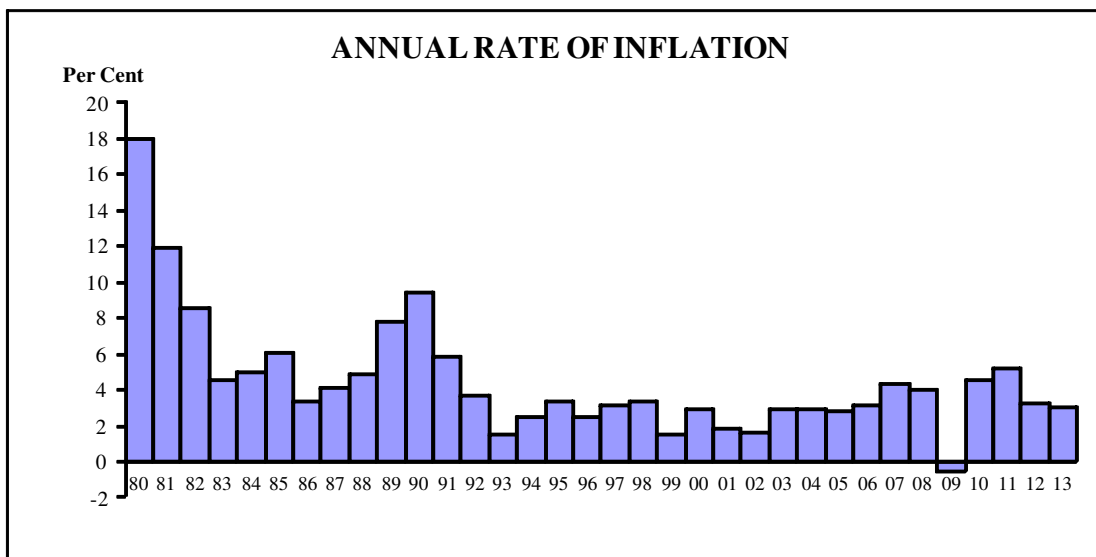
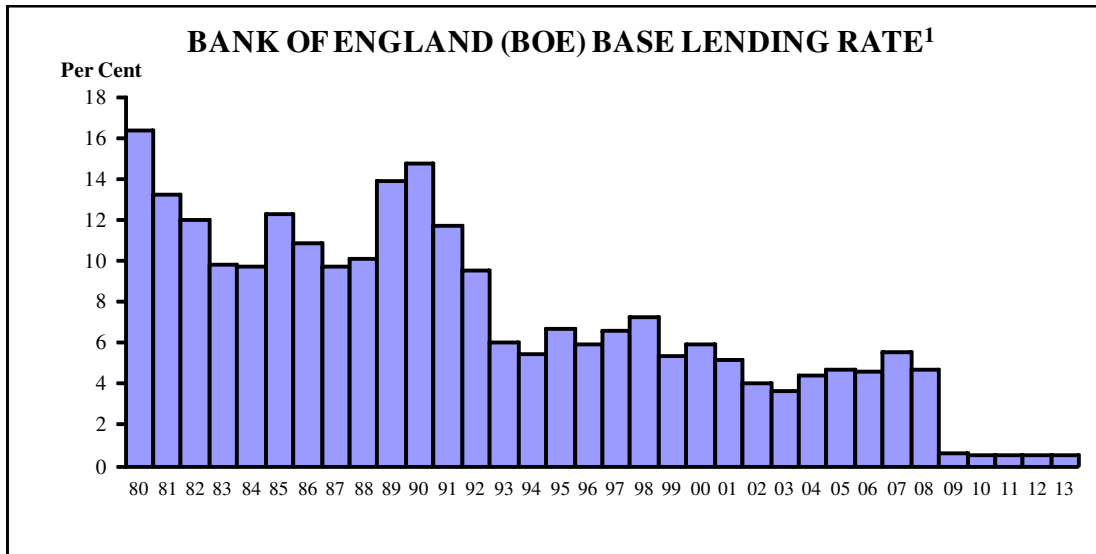
where  $n$  = nominal interest rate expressed as a decimal  
 $p$  = number of instalments per year

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. Actual 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 2013**

The Agricultural Wages Board for Northern Ireland by Order No. 93, which comes into operation on 6<sup>th</sup> April 2013, provides revised rates for minimum agricultural wages. This Order replaces Order No. 92 which was operative from 6<sup>th</sup> April 2012. 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 6<sup>th</sup> April 2013 for grades 1 – 6 workers are as follows:

Grade	Rate per Hour £
Grade 1-Minimum Rate (Applicable for first 40 weeks cumulative employment)	6.35
Grade 2-Standard Worker	6.65
Grade 3-Lead Worker	7.30
Grade 4-Craft Grade	7.84
Grade 5-Supervisory Grade	8.31
Grade 6-Farm Management Grade	8.99

Following a meeting on 31 January 2014, the Agricultural Wages Board (AWB) proposes to increase the above minimum rates for agricultural workers across all grades by 1.85% from 6 April 2014. The AWB will meet again on 21 March 2014 to make an Order to introduce the new rates which would come into operation on 6 April 2014.

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 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 6<sup>th</sup> April 2013 are as follows:

Grade	Rate per Hour £
Grade 1-Minimum Rate (Applicable for first 40 weeks cumulative employment)	9.53
Grade 2-Standard Worker	9.98
Grade 3-Lead Worker	10.95
Grade 4-Craft Grade	11.76
Grade 5-Supervisory Grade	12.47
Grade 6-Farm Management Grade	13.49

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 in continuous employment with the same employer for **more than** 52 weeks is entitled to 29 days holiday. 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 6<sup>th</sup> 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 6<sup>th</sup> 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 4477.**



## **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.

## **On Farm Welfare**

Owners and keepers of farmed animals are required to comply fully with The Welfare of Farmed Animals (Northern Ireland) Regulations 2012 (as amended). These Regulations sets down minimum standards for the keeping of farmed animals. They contains specific requirements such as inspections, record keeping, freedom of movement, buildings and equipment and the feeding and watering of animals.

The Northern Ireland Codes of Practice for the Welfare of Livestock provide advice and guidance for the upkeep of farm animals and details of relevant

legislation. Any person responsible for a farmed animal is required by law to ensure that they have access to and are acquainted with the relevant codes.

A person commits an offence if that person does not take such steps as are reasonable in all the circumstances to ensure that the needs of an animal for which that person is responsible are met to the extent required by good practice. An animal's needs shall be taken to include-

- (a) its need for a suitable environment,
- (b) its need for a suitable diet,
- (c) its need to be able to exhibit normal behaviour patterns,
- (d) any need it has to be housed with, or apart from, other animals, and
- (e) its need to be protected from pain, suffering, injury and disease.

For further information about Farm Animal Welfare please visit the DARD website at <http://www.dardni.gov.uk/farmed-animal-welfare.htm>

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#### AVERAGE CONACRE RENTS BY TYPE OF USE 2007 - 2012

Use	£ per hectare					
	2007	2008	2009	2010	2011	2012
Grass	184	193	188	189	195	216
Potatoes	586	686	623	654	703	501
Cereals	190	222	211	240	246	241
Rough grazing	46	41	34	37	41	37
<b>All uses</b>	<b>162</b>	<b>171</b>	<b>168</b>	<b>172</b>	<b>179</b>	<b>179</b>

Source:- Farm Business Survey

**SALES OF AGRICULTURAL LAND 1981 - 2006** <sup>(2) (3) (4) (5) (6)</sup>

<b>Year</b>	<b>Number of sales</b>	<b>Area sold (ha)</b>	<b>Price <sup>(1)</sup> (£/ha)</b>
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 2013-2014

**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](http://www.hmrc.gov.uk) Alternatively, a professional adviser may be approached.

### 1. Income Tax

<b>1.1 Income Tax Allowances</b>	<b>£</b>
Personal allowance for people born after 5 April 1948 <sup>1</sup>	9,440
Personal allowance for people born between 6 April 1938 and 5 April 1948 <sup>1,2</sup>	10,500
Personal allowance for people born before 6 April 1938 <sup>1,2</sup>	10,660
Maximum amount of Married Couple's Allowance for people Born 6 <sup>th</sup> April 1935 <sup>2,3</sup>	7,915
Income limit for Personal Allowance	100,000
Income limit for the allowances for those born before 6 April 1948	26,100
Minimum amount of married couple's allowance	3,040
Blind person's allowance	2,160

<sup>1</sup> 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. This reduction applies irrespective of age or date of birth.

<sup>2</sup> These allowances reduce where the income is above the income limit by £1 for every £2 of income above the limit. This applies until the personal allowance for those born after 5 April 1948 is reached. For married couples allowance this applies until it reaches the minimum amount.

<sup>3</sup> Tax relief for the Married Couple's allowance is given at the rate of 10 per cent.

### 1.2 Income Tax rates (%)

	<b>Income Tax Rate</b>	<b>Taxable Band</b>
Starting rate for savings*:	10%	£0 to £2,790
Basic rate:	20%	£0 to £32,010
Higher rate:	40%	£32,011-£150,000
Additional rate:	45%	Over £150,000

\*There is a 10 per cent starting rate for savings income only. If, after deducting your Personal Allowance from your total income liable to Income Tax, your 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 37.5% (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	23% less relief*
Main rate of Corporation Tax	Above £1,500,000	23%

\*The relief is £1,500,000 minus the amount of profits multiplied by 3/400

## 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 £10,900 for individuals with independent taxation.
- (b) 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 6<sup>th</sup> 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)

VAT is a tax that's charged on most business transactions in the UK. Businesses add VAT to the price they charge when they provide goods and services to customers.

The annual turnover threshold for VAT registration is £79,000.

Three rates of VAT (Effective from 4<sup>th</sup> 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.

All VAT businesses are now required to submit online VAT returns 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](http://www.hmrc.gov.uk))

## 6. Stamp Duty

Purchasers of **residential** property are subject to the following rates of stamp duty for property purchased from 25<sup>th</sup> March 2012.

- 0% on purchases below £125,000\*
- 1% on purchases between £125,000 and £250,000\*
- 3% on purchases between £250,000 and £500,000;
- 4% on purchases between £500,000 and £1 million;
- 5% on purchases between £1 million and £2 million.
- 7% on purchases over £2 million (from 22<sup>nd</sup> March 2012)

\*Residential property in disadvantaged areas is 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. However, disadvantaged Areas Relief was abolished for transactions with an effective date on or after 6 April 2013 and all claims to this relief must be made on or before 5 May 2014.

Purchasers of **non-residential or mixed used** property are subject to the following rates of stamp duty for property purchased from 25<sup>th</sup> March 2011.

- 0% on purchases below £150,000 (annual rent under £1,000)
- 1% on purchases below £150,000 (annual rent over £1,000)
- 1% on purchases between £150,000 and £250,000
- 3% on purchases between £250,000 and £500,000;
- 4% on purchases above £500,000

(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 2013/14 are:

- |         |   |
|---------|---|
| Class 2 | Self employed (up to state pension age)<br>Flat rate £2.70 per week (small earnings exemption<br>£5,725 per year)                 |
| Class 4 | Self employed (up to state pension age)<br>9.0% of profits/gains between £7,755 and £41,450<br>2.0% of profits/gains over £41,450 |

## 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 2013/14 tax year must be sent back by the following deadlines:

- Paper returns - **31 October 2014**. 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 2015**. The deadline is earlier if you owe tax of less than £3,000 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 2014** 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.

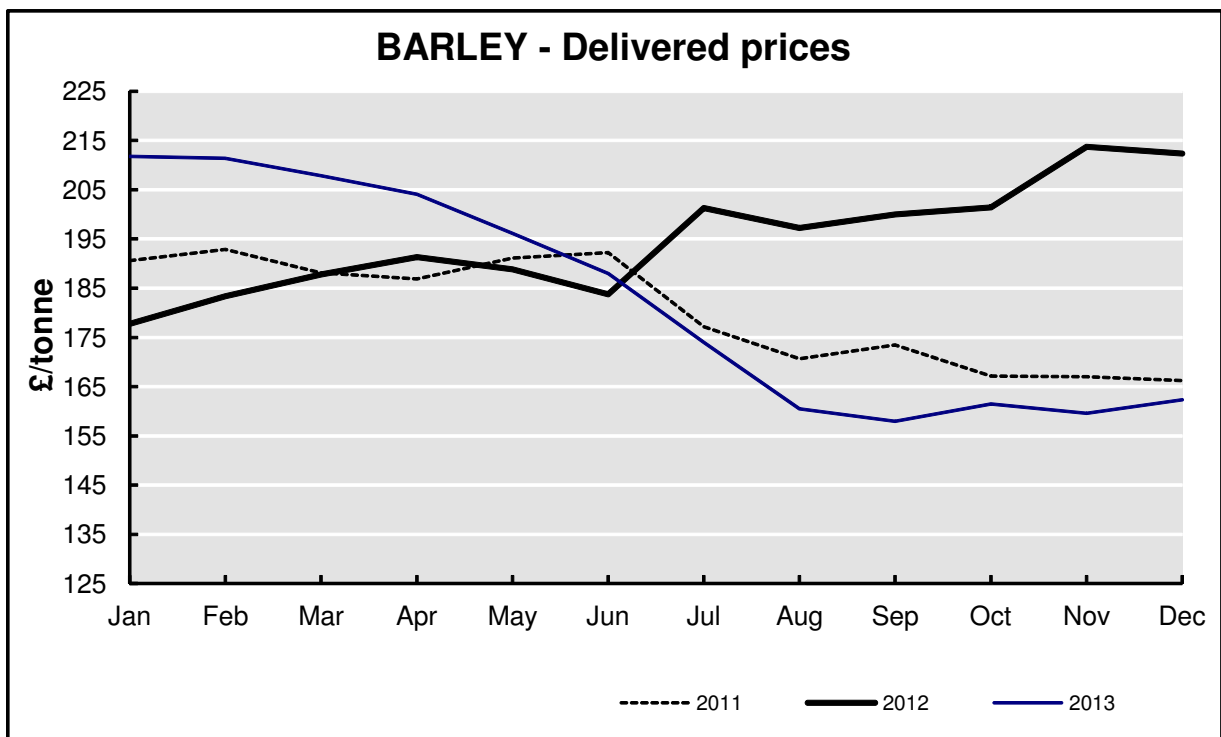
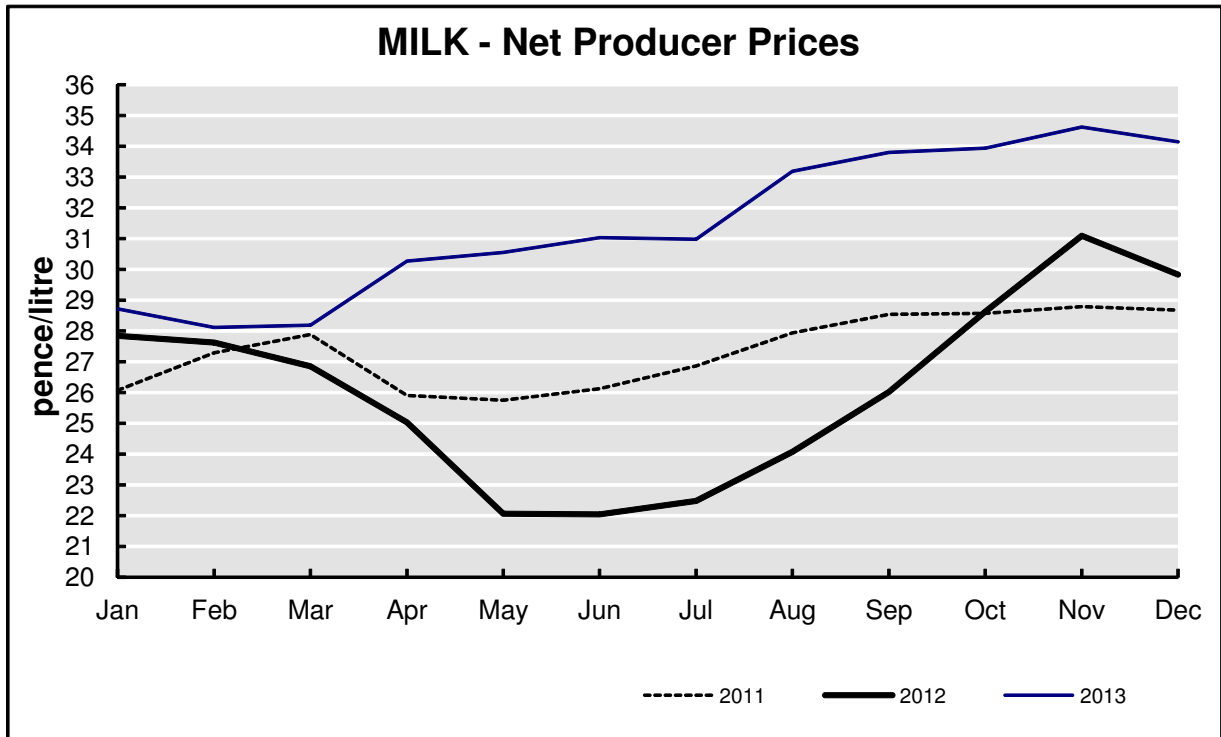
In order to submit your form online you must register for online services on the HMRC website ([www.hmrc.gov.uk](http://www.hmrc.gov.uk))

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.

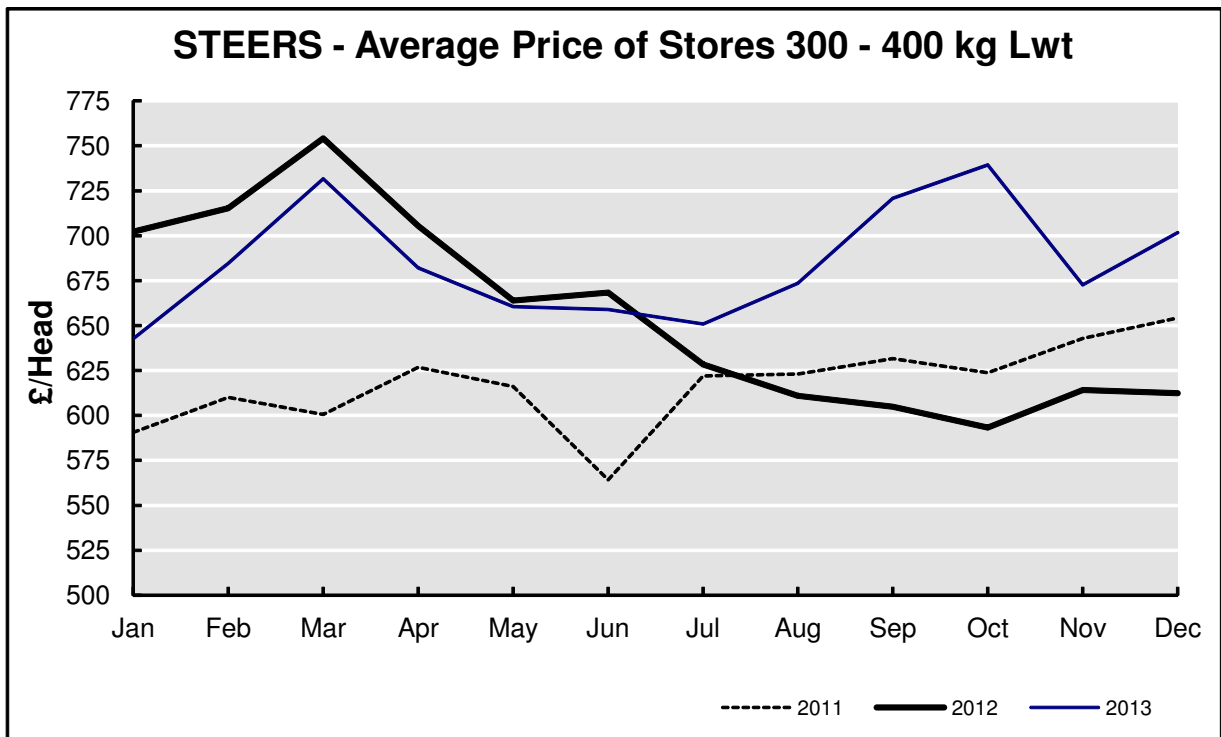
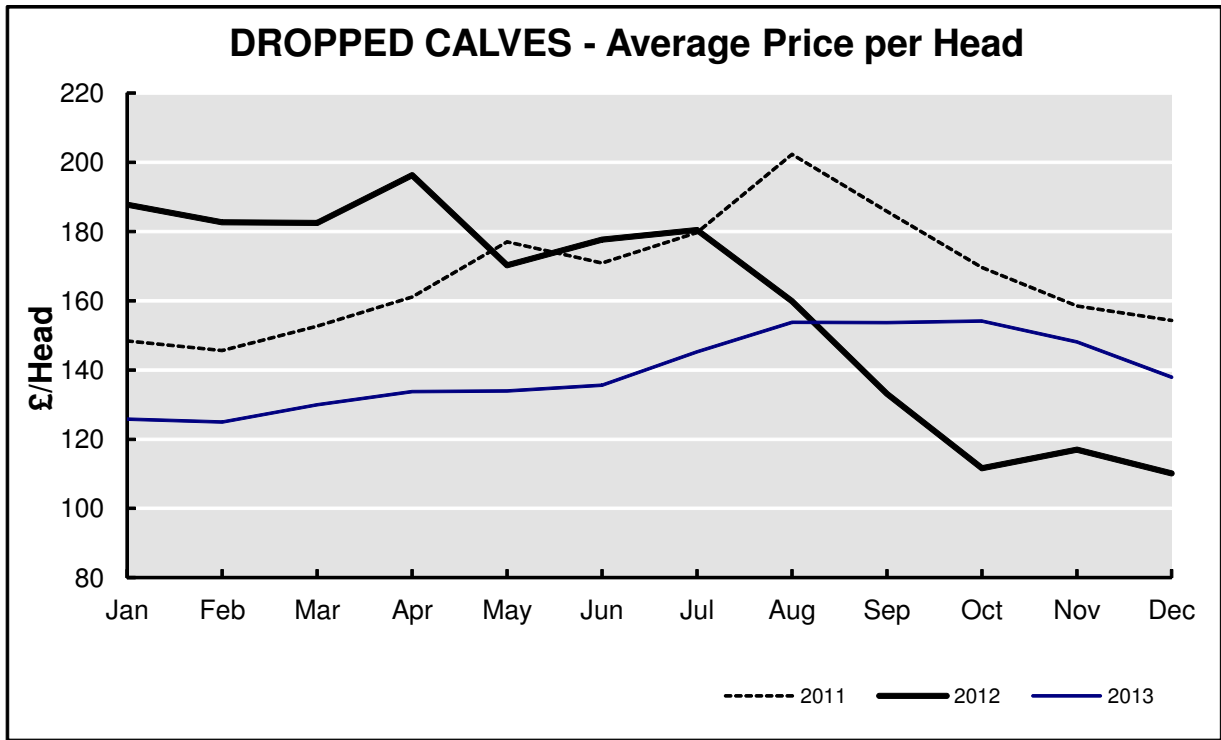
The tax liability will be based on the profit arising in the same year. Therefore, taxable business profits for any year will be those shown on a set of yearly accounts ending in that tax year.

## MILK AND BARLEY PRICES, 2011 - 2013

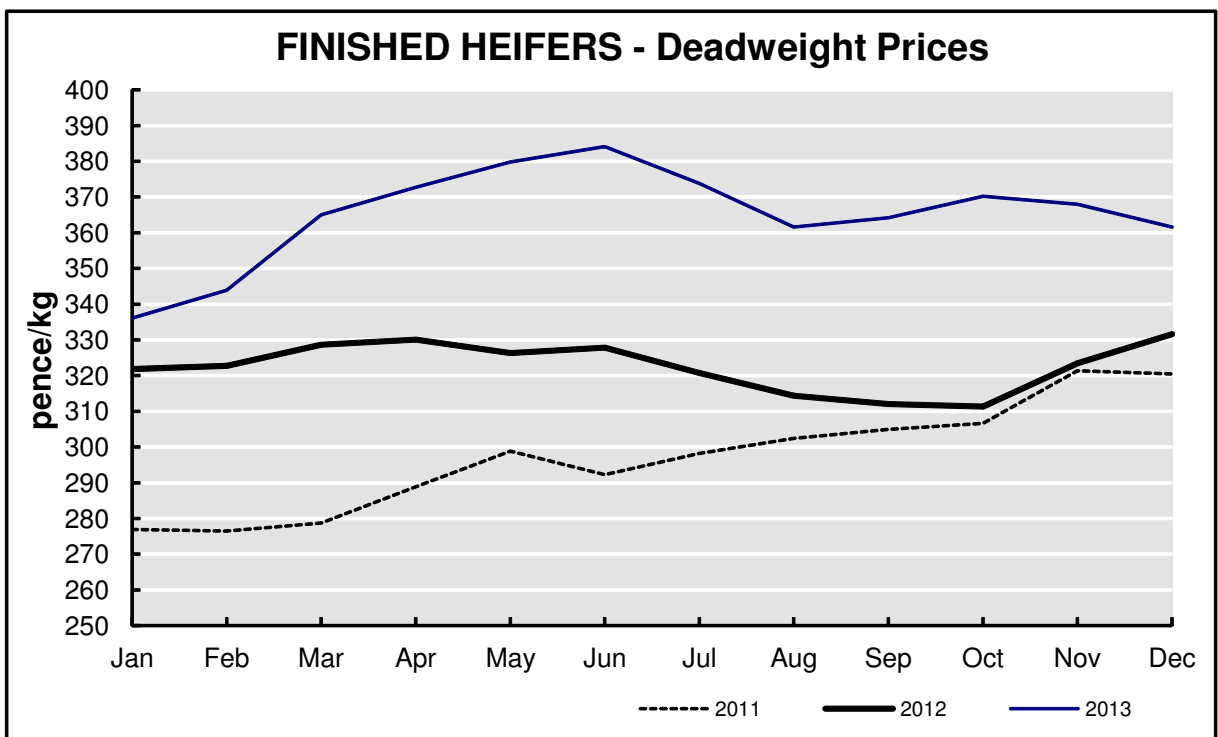
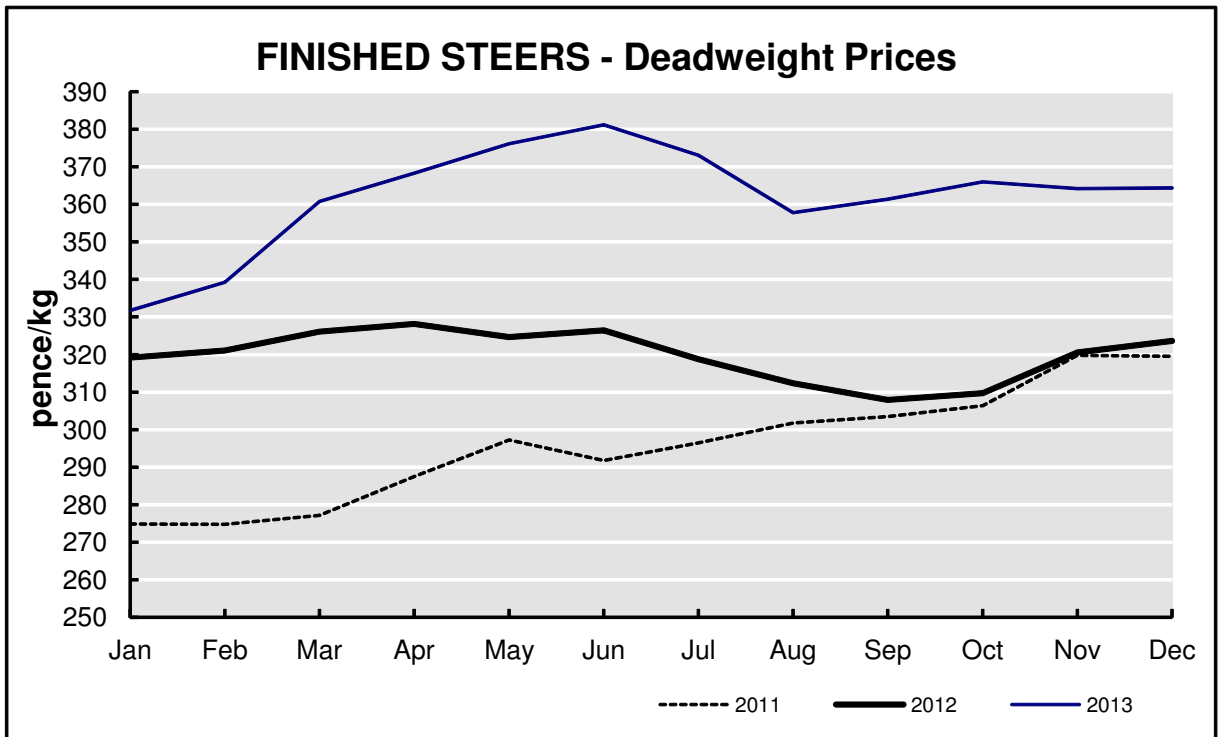




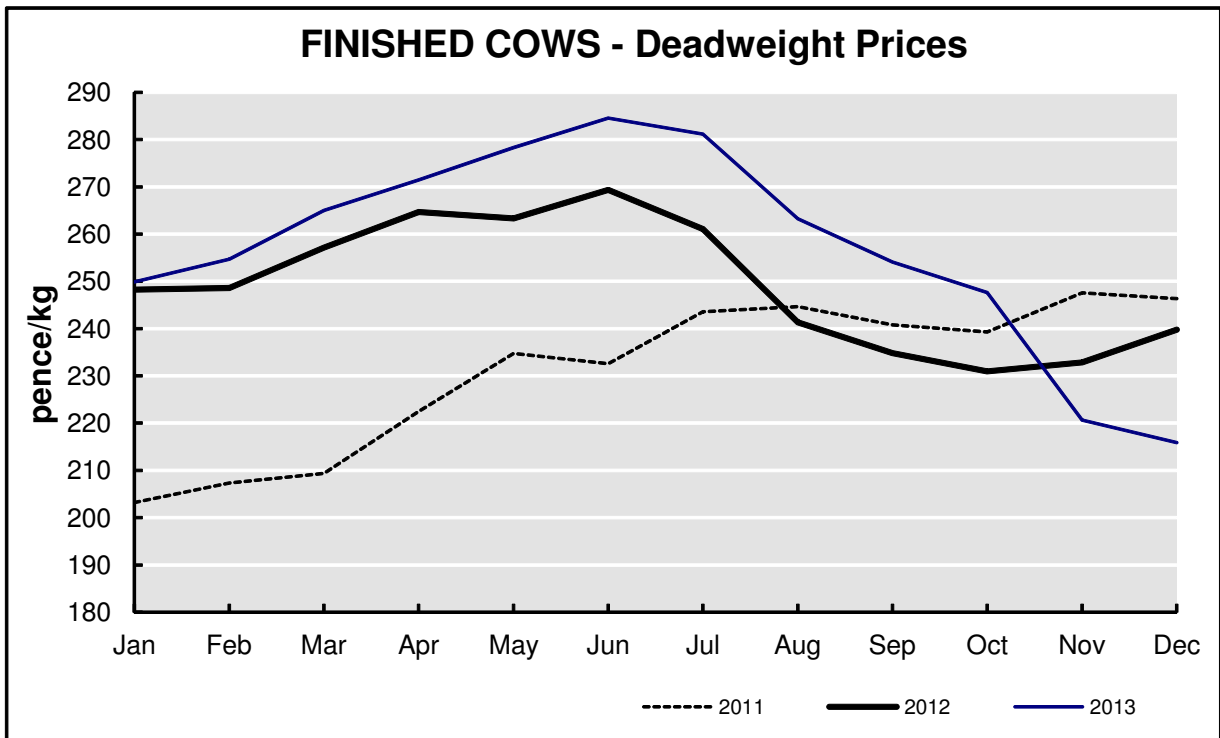
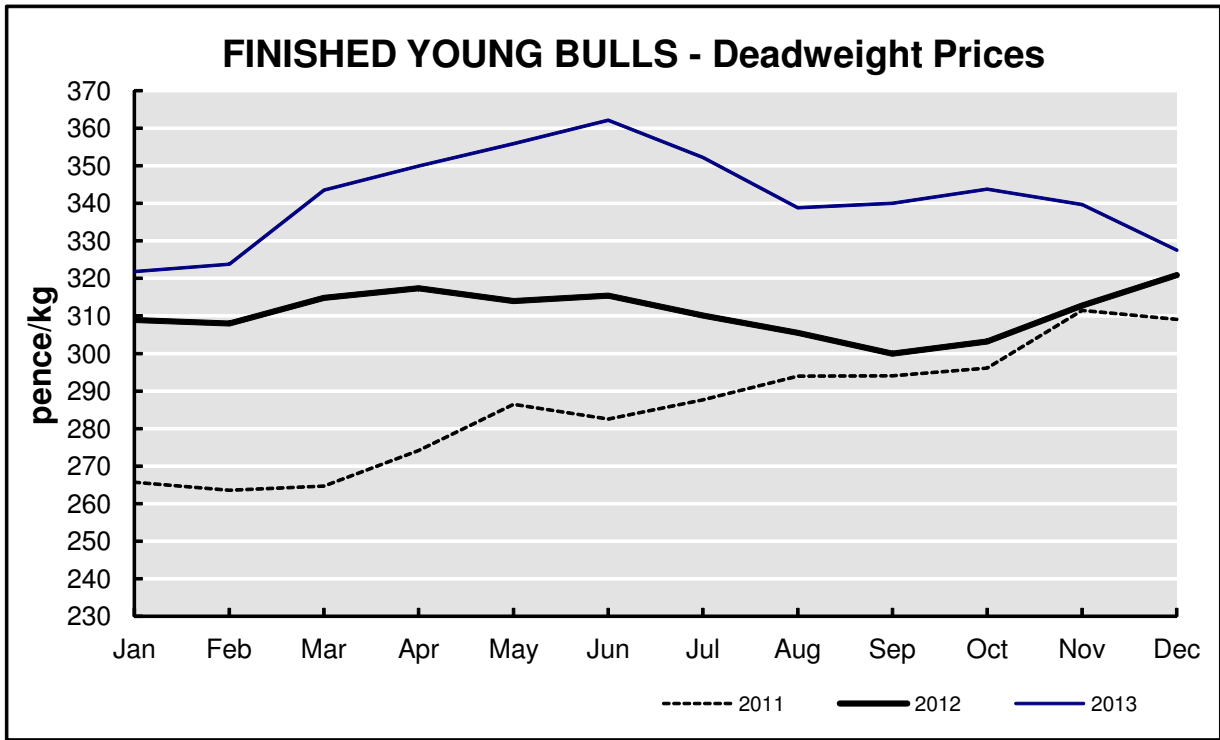
## CATTLE PRICES, 2011 - 2013



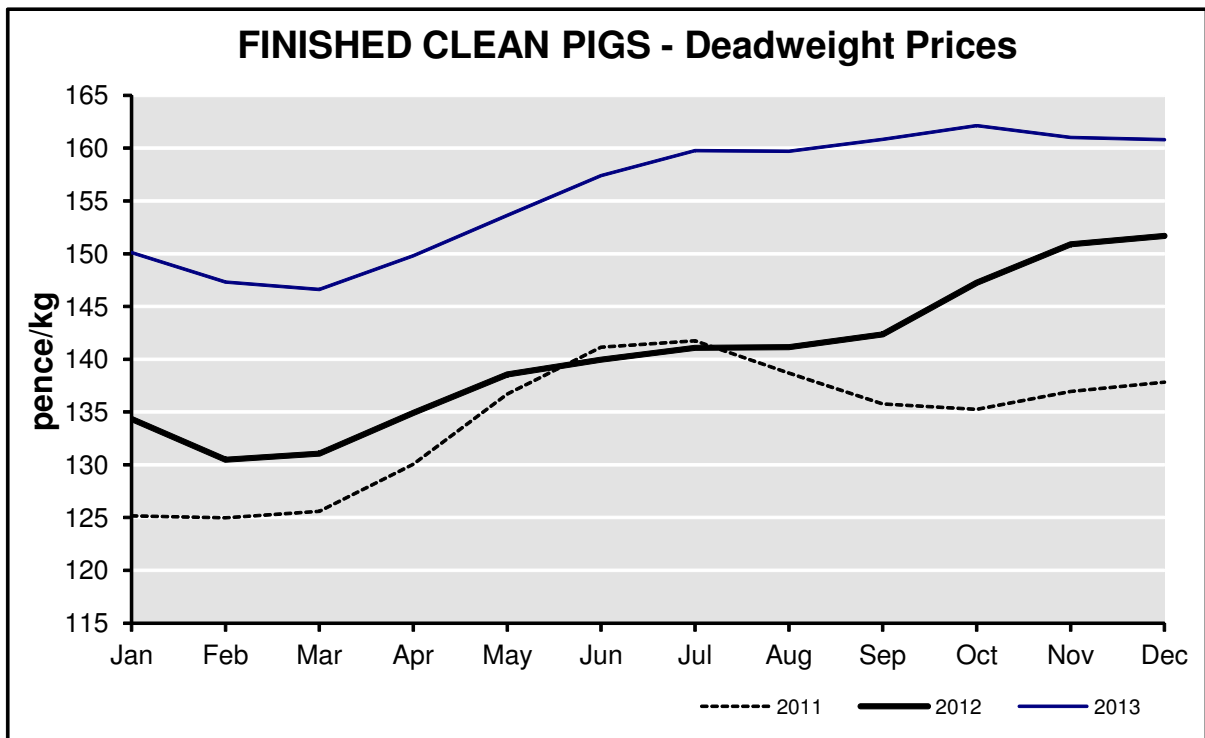
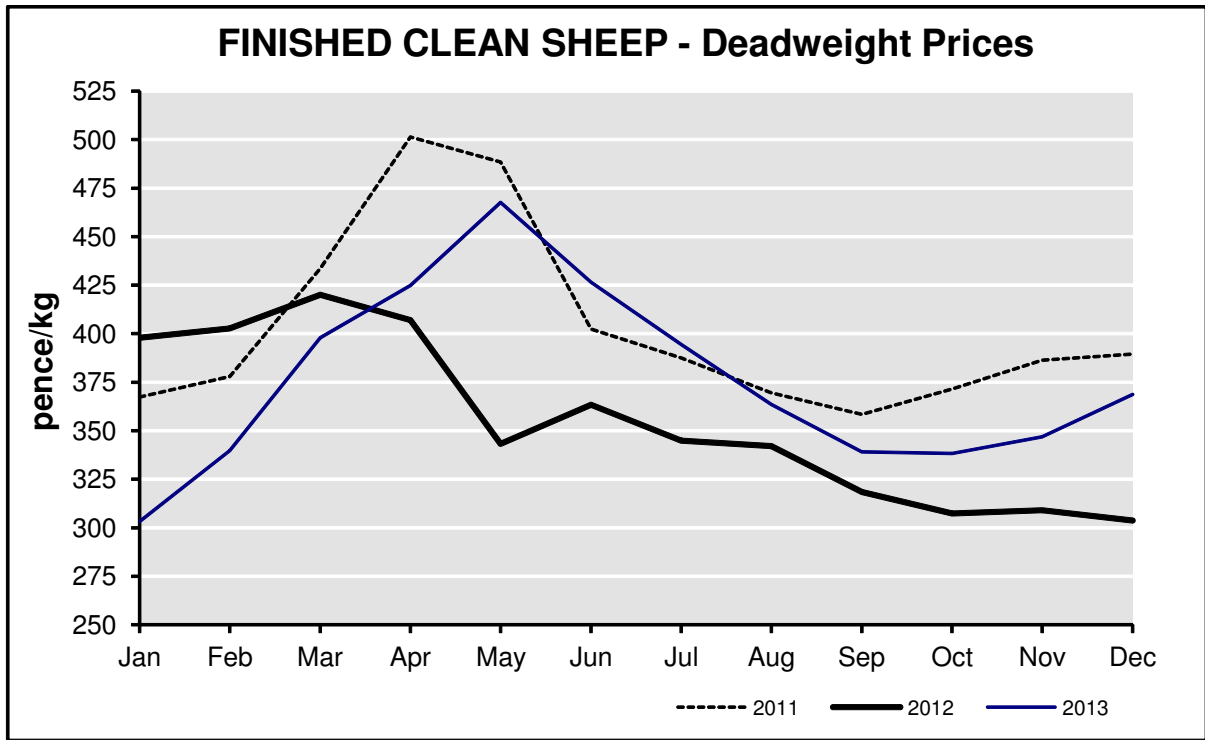
## BEEF PRICES, 2011 - 2013



## BEEF PRICES, 2011 - 2013



## LAMB AND PIGMEAT PRICES, 2011 - 2013



## **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](http://www.dardni.gov.uk).

### **By Telephone**

If you know the name of the person you wish to speak to, please telephone **0300 200 7850**. 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](mailto:dardhelpline@dardni.gov.uk)

### **By Website**

Customer feedback / queries can be made at:

<http://www.dardni.gov.uk/feedback.htm>

## New DARD Telephone Numbers

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

## **Agri-Food and Biosciences Institute (AFBI)**

### **AFBI Headquarters**

(Agri-Environment, Economics, Fisheries, Food Science, Plant Science, Statistics)

18A Newforge Lane

**BELFAST** BT9 5PX

Tel: 028 9025 5636

Fax: 028 9025 5035

Website: [www.afbini.gov.uk](http://www.afbini.gov.uk)

e-mail: [info@afbini.gov.uk](mailto:info@afbini.gov.uk)

### **AFBI Hillsborough**

(Agricultural Research Institute)

Large Park

**HILLSBOROUGH** BT26 6DR

Tel: 028 9268 2484

Fax: 028 9268 9594

### **AFBI Crossnacreevy**

(Seed Certification Plant Testing Station)

50 Houston Road

Crossnacreevy

Castlereagh

**BELFAST** BT6 9SH

Tel: 028 9054 8000

Fax: 028 9054 8001

### **AFBI Omagh**

(Veterinary Sciences Division)

43 Beltany Road

Coneywarren

**OMAGH BT78 5NF**

Tel: 028 8224 3337

Fax: 028 8224 4228

### **AFBI Stormont**

(Veterinary Sciences Division)

Stoney Road

**BELFAST** BT4 3SD

Tel: 028 9052 5791

Tel: 028 9052 0011 / 5791

Fax: 028 9052 5773

### **AFBI Loughgall**

(Horticulture and Plant Breeding Station)

Manor House

Loughgall

**ARMAGH** BT61 8JA

Tel: 028 3889 2344

Fax: 028 3889 2333

### **AFBI Bushmills**

River Bush Salmon Station

Church Street

**BUSHMILLS**

BT57 8QJ

Tel: 028 2073 2544

Fax: 028 2073 2130

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

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**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

**Agriculture Regulation team**

(Nitrates Action Programme, Nitrates Derogations  
& Field Storage of Poultry Litter)

Tel: 028 9262 3188

**SSAFO Issues**

(Contact the NIEA before planning to substantially  
alter any existing storage facility or commission  
new diesel tank(s), silos or slurry tanks.

Tel: 028 9262 3102

SSAFO is the control of pollution from Silage,  
Slurry & Agricultural Fuel Oil)

**Ground Water Authorisations**

(Authorisation for disposal of spent sheep dip)

Tel: 028 9262 3279

**Applying Sewage Sludge to Land**

**Registration of Waste Carriers**

**Simple Waste Management Exemptions**

**Other Waste Management Exemptions**

**Hazardous Waste Queries**

**Water Pollution Hotline**

(A 24-hour confidential hotline  
for reporting pollution incidents)

Tel: 028 9263 3445

Tel: 028 9056 9360

Tel: 028 9056 9360

Tel: 028 9056 9358

Tel: 028 9056 9710

Tel: 0800 80 70 60



Policy and Economics Division  
Department of Agriculture and Rural Development  
Dundonald House  
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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](http://www.dardni.gov.uk)

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