

Level of organic N kg/ha	130	150	170	190	210	230	250
Equivalent stocking rate	1.53	1.76	2.00*	2.24	2.47	2.70	2.94

\*Average stocking rate on Northern Ireland dairy farms

The average benchmarked dairy farm has an approximate N loading of 175 kg. For those above the 170kg N/ha limit they should consider taking additional land and/or reducing stock numbers. The availability and cost of additional land, stock type and stock profitability will influence the option taken.

### Calculating the N loading

Farmers can click on [www.ruralni.gov.uk](http://www.ruralni.gov.uk) to calculate the N loading using the N loading programme. First time users need to register on the website to gain access to this programme. Alternatively, contact your local dairy development adviser.

### Focus Farms for Dairy Farmers

The FOCUS FARM initiative was launched by farm minister Ian Pearson and co funded by the EU Programme for Peace and Reconciliation as a cross community initiative. The aim of the Focus Farms initiative is to demonstrate good farming practice courtesy of farm visits to a total of eighty innovative and forward thinking farm businesses representing every aspect of agriculture practised throughout Northern Ireland.

Groups of dairy farmers now have a unique opportunity to visit and learn from other colleagues who demonstrate good practice in their key areas. Focus Farmers will show how they run their enterprise to groups of visiting farmers and this can be followed-up on a more detailed basis courtesy of one-to-one mentoring. There are twenty four Dairy Focus Farms which will demonstrate a range of key areas as given in the list below.

Reggie	Alcorn	Omagh	Dairy	Dairy Cow Welfare
Kenneth	Alcorn	Omagh	Dairy	Environment
Stephen	Brown	Beragh	Dairy	Dairy Cow Fertility
Cahal	Casey	Ballymena	Dairy	Dairy Cow Welfare
Tom	Craig	Limavady	Dairy	Systems for Economic Milk Production
Boyd	Douglas	Dungiven	Dairy	Milk Produced Per Cow
Thomson	Harbison	Coleraine	Dairy	Dairy Cow Fertility
William	Henderson	Tobermore	Dairy	Milk Composition Quality
John	King	Armagh	Dairy	Systems for Economic Milk Production
Patrick	Lavery	Portadown	Dairy	Systems for Economic Milk Production
Ian	Marshall	Mowhan	Dairy	IT Systems
Robert	Martin	Ballynahinch	Dairy	Dairy Cow Welfare
Drew	McConnell	Omagh	Dairy	Milk Composition Quality
David	Millar	Ballymoney	Dairy	Other - IT Systems
Donald	Montgomery	Eglinton	Dairy	Dairy Cow Fertility
William	Munnis	Ballymoney	Dairy	Systems for Economic Milk Production
James	Murphy	Tempo	Dairy	Systems for Economic Milk Production
Martin	Reel	Newry	Dairy	Milk Composition Quality
Ian	Semple	Dungiven	Dairy	Environment
Gregg	Somerville	Dromara	Dairy	Dairy Cow Fertility
William	Taylor	Newtownards	Dairy	Dairy Cow Fertility
David	Wallace	Antrim	Dairy	Environment
Ian	Watson	Coleraine	Dairy	Dairy Cow Welfare
David	Laughlin	Kilrea	Organic	Dairy

If you would like to visit a Focus Dairy Farm, then simply ring the Focus Farm Centre Free Phone Number (028) 9084 0400 or visit the website [www.focusfarms.co.uk](http://www.focusfarms.co.uk)

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# DAIRY Bulletin

May 2005

### Dairy Business and Technology at Balmoral Show

Balmoral show runs from Wednesday 11 to Friday 13 May. The Business and Technology display will be part of the 'Government Departments, Working for You' exhibition in the Balmoral Hall. There are many issues facing the dairy industry at present. The College of Agriculture, Food and Rural Enterprise (CAFRE) provides assistance to farmers through benchmarking, Challenge programmes, training programmes, technology transfer and information and communication technology (ICT).

One farmer who has used dairy benchmarking is Robert Curry from Keady. He says 'Annual benchmarking has proved to be of real benefit to my dairy farming business'. Come along to the stand to find out more about how benchmarking can help in making management decisions on your farm at this critical time.

Development advisers will be on hand to answer questions on individual Challenge programmes and short courses and give details of when and where they are likely to run.

You will also be able to find out more about the potential of adopting new technology and to integrate the use of ICT to help you compete in the marketplace.

### Benchmarking the Dairy Business

On the 1 January 2005 dairy farming entered a new era with the Single Farm Payment. The EU system of supporting milk price through export refunds has been replaced by a direct payment to dairy farmers known as the Dairy Cow Premium. The Dairy Cow Premium has been introduced to compensate somewhat for an anticipated fall in milk price. Over the next year many dairy farms may have to invest capital in slurry storage and slurry handling facilities to comply with the Nitrates Directive. It is therefore essential that dairy farmers look carefully at their current dairy business before investing capital. Benchmarking the physical and financial performance of the dairy herd will provide necessary information to aid decision making for the future of the dairy business.

### What is benchmarking?

Benchmarking is "comparing the performance of your farm business with other similar types of farms." It provides farmers with an opportunity to identify strengths and weaknesses within their farm business and to make the necessary changes so that farm profit can be improved. Benchmarking will add up the sales from the farm such as liquid milk, calves and cull cows. It collates input costs like concentrates, fertiliser, and veterinary medicine. Benchmarking also takes account of all the overhead costs on the farm namely machinery, contractor, electricity, property repairs, insurance, conacre, labour and finance costs.

**Results**

By presenting results on a pence per litre basis, dairy farmers are able to identify how much it costs to produce a litre of milk on their farm. Having this information available helps make decisions about capital expenditure on quota, land, buildings or machinery.

Total costs of producing milk for all benchmarked farms in 2003/04 averaged 11.7 pence per litre of milk. It is important to note that this average net profit per litre does not allow for family labour, tax or capital investment. Overall benchmarking results highlight the key areas to focus on when making management decisions to reduce milk production costs.

**Business Challenge**

To complement benchmarking there is a specifically tailored business course for dairy farmers called the Business Challenge. The course is delivered one evening per week over a ten week period. The course covers all aspects of benchmarking and looks at each area of income and expenditure covered in benchmarking to see where improvements can be made to improve farm profitability.

**Help Available**

In the current time of change it is essential to know the performance of the business and the ability to deal with fluctuating farmgate prices. Benchmarking provides every farmer with the opportunity to have real meaningful information for their own business and to make decisions applicable to their situation. Farmers who wish to benchmark their dairy farms should contact their local dairy development adviser or visit <http://www.ruralni.gov.uk>.

**Rearing Dairy Herd Replacements – What Cost?**

Over 300 dairy farmers in Northern Ireland used the Greenmount Dairy Benchmarking System in 2003/04. Over 90 of these farmers have benchmarked their dairy heifer replacement enterprise.

**Heifer rearing costs**

Table 1 highlights the costs and returns involved in rearing dairy herd replacements. Most farmers valued their heifers entering the dairy herd at £700 - £750. The final analysis of the figures illustrate that in reality each heifer is costing more than this when she enters the dairy herd. Many heifers calve older than two years old and this adds to the cost. It appears that late born spring calves are held over to the autumn to calve on many farms.

**Financial results**

The average total cost on these benchmarked farms to rear a replacement heifer was £745 per heifer. This was made up of variable costs of £322 and overhead costs of £423. This does not include the value of the calf transferred in, a rental value on owned land or family labour costs. When a land charge of £232/ha (average conacre cost) is taken for owned land and the cost of the calf is included then the breakeven sale or transfer price of each heifer rises to £840 per heifer. This is based on overhead costs being divided equally across every hectare on the farm.

**Top 25% based on profit per heifer**

The top 25% of farmers had a profit per heifer of £236. They controlled their costs, with a total cost of £563 per heifer to cover all variable and overhead costs, with overhead costs of £113 per heifer less than average. On the other hand the bottom 25% had overhead costs £209 per heifer above average.

**Physical performance**

Concentrate feed levels were 861kg per heifer on average or £130 per heifer. The top 25% of farms made better use of forage. The bottom 25% will have to focus on improving liveweight gain from grazed grass if they are to continue rearing replacements on their farms. Poor performance from forage is resulting in low liveweight gain, older heifers at calving, more concentrate use and indeed heifers below their target weight at first calving.

**Future management**

The cost of rearing quality heifer replacements should be a major priority in order to improve the total profit of the dairying enterprise and have a sustainable business. This means 580kg heifers calving at two years of age using about 750kg of concentrates with free access to quality forage throughout their lifetime. Farmers who wish to benchmark their dairy farms should contact their local dairy development adviser or visit <http://www.ruralni.gov.uk>.

**Table 1: Dairy Heifer Benchmarking**

Average performance compared to top 25% and bottom 25% based on profit per heifer sold or transferred from the enterprise.

Financial Performance (£ / heifer)	Bottom 25%	Average	Top 25%
Heifer Output	728	699	798
Forage Costs	139	94	76
Concentrate Costs	176	130	106
Total Variable Costs	453	322	253
Total Common Overhead Costs	443	313	243
Total Overhead Costs	632	423	310
Net Profit	-357	-46	236
<b>Physical Data</b>			
Number of heifers sold/transferred out	25	30	33
Meal fed kg / heifer	1198	861	729

**Calculating and Understanding Nitrogen Loadings**

Implementation of the Nitrates Directive requires a number of measures to reduce or prevent nutrients from agriculture entering our waterways. One such measure will limit the amount of manures that can be applied. For any farm the amount of total nitrogen (N) in organic manures applied to the land, including by the animals themselves, and that brought onto the farm, shall not exceed 170kg N/ha/year.

**Calculating the N Loading**

Standard values for the amount of total N in the manure of each stock type are used to calculate this loading. The total N contributions are added up for all stock types and then expressed over the area farmed. An example below shows how the N loading is calculated for a 66ha farm with 100 dairy cows and followers.

Stock type	Stock numbers	N loading per stock	Total N loading
Dairy Cows	100	91	9100kg
Cattle 1 – 2yrs	30	47	1410kg
Calves 0 – 1yr	30	19	570kg
<b>Total</b>			<b>11080kg</b>
Adjust for imported (+) or exported (-) manure			0kg
<b>N loading is 11080kg / 66ha = 166kg N/ha</b>			

**Range**

In Northern Ireland due to the range of intensity with dairying systems the impact of the 170kg N/ha limit varies. The table overleaf assumes a specialist dairy farm with a 30% replacement rate and shows the relationship between organic loading and stocking rate.