

# The Farm Management Handbook



Farm  
Advisory  
Service

## Dairying



The UK reference  
for farm business  
management



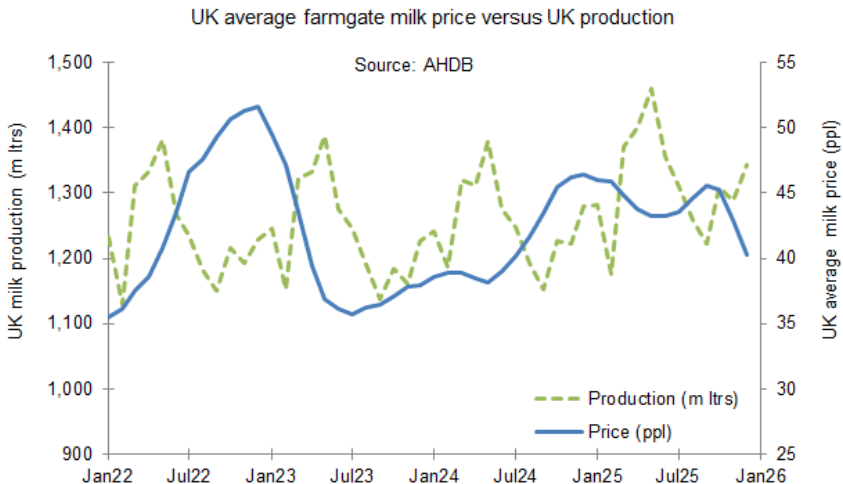
Part of Scotland's  
Rural College (SRUC)

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# Introduction

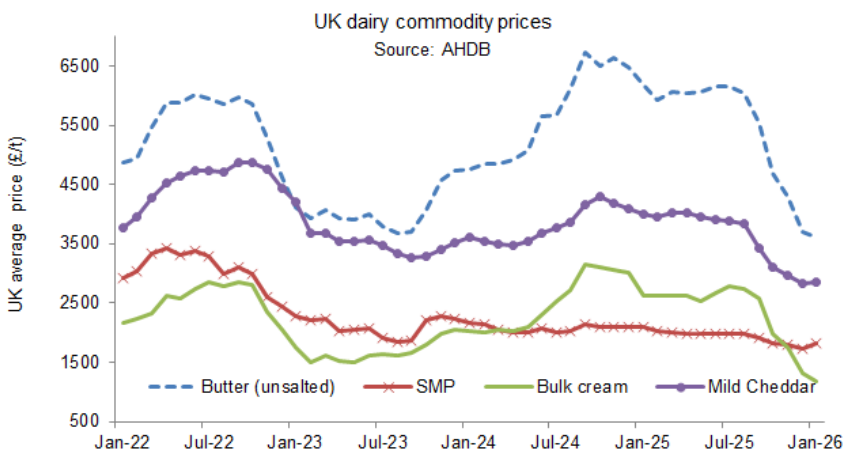
## Farm-gate milk prices and price drivers

The UK average farm-gate milk price declined slightly in the first half of 2025, followed by a rise to peak in October at 45.30ppl. In the final two months of the year, milk prices fell to 42.91ppl in November which was a 5.3% reduction on the previous month and 40.29ppl in December which was a 6.1% reduction compared to November. An early spring in 2025 with good dry weather meant an early turnout to grass and the spring flush daily volume for GB peaked at 39.02 million litres on the 4<sup>th</sup> May, the highest on record. Following this, milk volumes dropped and continued to fall until September due to a dry summer in areas and low grass growth. Milk volume rose steadily for remainder of the year despite forage reserves being low in parts of the UK. AHDB estimated that GB production will reach 12.83 billion litres for the 2025/26 milk year, production so far (April – January) has reached 10.91 billion litres which is up 5.2% compared to the same period on the 2024/25 milk year. Looking forward into 2026, the trend for milk price looks set to continue declining for the first half of the year until milk supplies stabilise, a rise in milk prices may be seen towards the end of the year. The high amounts of rainfall seen so far in 2026, are potentially going to have implications on the beginning of the grazing season in the spring.



The UK farm-gate milk price is mainly driven by the commodities market and is greatly influenced by EU market trends. Dairy fats (butter and cream) have seen prices fall throughout 2025, butter has fallen from £6,189/t in January 2025 to £3,600/t in January 2026 whilst cream has fallen from £2,630/t in January 2025 to £1,185/t in January 2026. High milk supplies in the UK and on the continent have been particularly influential on butter and cream prices. High butter stocks have reportedly pulled prices down towards the end of the year with markets being quiet.

Poor EU milk volumes earlier in 2025 have been mainly due to Bluetongue disease affecting production in France, Germany, Belgium and Denmark. The market for cheddar remained firm during the first half of 2025, hovering around the £4,000/t mark, with a slight drop for June to £3,900/t. Prices continued to drop and in January 2026, cheddar was sitting at £2,860/t with strong global supplies, and the market appears to have stabilised. Lastly, the skim milk powder (SMP) price has performed best out of the commodities despite a decline in price, it has dropped from £2,090/t (January 2025) to £1,810/t (January 2026), having come under pressure from increasing UK milk volumes, along with lower demand, currency exchange rates and Middle East tensions having also impacted on the UK wholesale price.



The latest global milk deliveries data from AHDB for November 2025 were 4.4% above the same month in 2024, with average daily deliveries of 856.5 million litres. Milk deliveries in the EU were up 17.8 million litres in November 2025 compared due to the previous year; volumes were boosted by low input prices, good forage quality, and milk prices pushing up yields. Germany had the greatest increase out of the EU countries, with 180 million litres more in November 2025 than the previous year. US production was up by 11.9 million litres due to herd sizes expanding with a push for higher yields, disease recovery and better margins have been a factor as well. New Zealand and Argentina saw increases in milk volumes, 2.2 and 2.8 million litres, respectively. Favourable weather conditions, confidence in milk prices and investment in the dairy industry have been drivers in these countries. Australia saw a slight decrease by 0.6 million litres on the previous year.

### Milk supply contracts

All UK dairy farmers are contracted to supply milk to an individual milk purchaser/processor. A select number of dairy farmers are on retailer-aligned contracts. Farmers on these contracts receive a milk price based on a cost of production formula used by the individual retailer. As of July

2025, aligned milk contracts were in the region of 42ppl–44ppl for a liquid standard litre. The majority of non-aligned farm-gate milk prices are in the region of 40ppl-46.0ppl for a liquid standard litre, based on 4% butterfat and 3.3% protein .

The price paid for milk sold for manufacturing purposes places more emphasis on compositional quality, with a standard manufacturing litre being based on 4.2% butterfat and 3.4% protein. These contracts typically pay around up to 2ppl more than the liquid standard litre. Depending on the contract, bonuses and penalties are awarded with milk composition and hygiene quality being either above or below the standard litre respectively. For hygiene quality, a standard litre is based on a bactoscan of 30,000/ml, somatic cell count (SCC) of 200,000/ml and thermodurics of 500/ml.

Additional bonuses for milk collections may include every other day collections, volume bonuses and flexible collection times.

### **Milk contract legislation**

The Fair Dealing Obligations (Milk) Regulations 2024 came into force in the UK on 9<sup>th</sup> July 2024. This new regulation aims to promote fairness in the supply chain and ensures that all contracts between producers and processors are clear and fair and that both parties know their rights and responsibilities. As a minimum, all contracts must include information on the following areas:

- Clear terms around pricing mechanisms.
- Prohibition of unilateral changes.
- Clear terms on the length of milk purchase contracts and termination.
- A dispute resolution mechanism.
- An express term that requires the purchaser to act in good faith in relation to the contract.

The Agricultural Supply Chain Adjudicator (ASCA) is there to enforce the regulations and resolve any disputes between producer and processor. From the 9<sup>th</sup> July 2024, all new contracts issued must be compliant with the legislation and all existing contracts must be compliant by 9<sup>th</sup> July 2025.

### **Fixed price contracts**

From time to time, some milk purchasers offer fixed contracts, allowing producers to fix a certain proportion of their milk volume at a given price for a period of time. ‘Futures contracts’ allow farmers to reduce their exposure to market volatility with regards milk price and to plan ahead with purchasing key inputs such as feed and fertiliser. Futures broker StoneX Group Inc. calculates regular forward milk prices based on European milk futures contracts and currency exchange rates.

## **Cost of production**

For the 2025/26 year, independent consultants The Dairy Group, estimate the cost of production at 45.3ppl, up 0.5ppl. While lower rent and finance and feed costs are expected, other costs are likely to see inflation of 3%. The forecast is for a profit of 2.0ppl after family labour. However, the difference in the cost of production between the top 25% and bottom 25% of producers is likely to be around +/-6ppl.

## **Outlook**

Domestic milk production (for GB) is predicted to reach 12.83 billion litres for the 2025/26 season, which is 03.1% higher than 2024/25 (AHDB Dairy). This is despite producer numbers having fallen, with the GB milking herd 0.9% smaller in April 2025 compared to a year ago. Farmgate prices have held steady into 2025 despite significantly higher milk volumes but there are a number of factors that could put pressure on milk prices. The easing of feed prices, with the US expecting a bumper maize crop means that the milk price to feed price ratio could continue to drive confidence in the sector and push for higher milk volumes and/or herd expansion. However, negative impacts on production could come from high heifer replacement costs and limited availability and risk of disease (mainly from Bluetongue).

According to Rabobank's latest forecast, global milk production is set to increase by 1.1% in Q2 of 2025, and 1.4% in Q3, which if realised, would be the highest quarterly growth seen since 2021. Growth in Q1 of just 0.5% has helped keep dairy commodity prices firm but Rabobank suggest the long-term outlook for later in the year is more uncertain and that the current high commodity prices may not be sustainable. Expanding milk supply and concerns around demand, consumer confidence and economic difficulties in China, are fuelling more negative sentiment in dairy markets, combined with the unknown impacts of US tariff effects on global trade and geopolitical events (Middle East tensions).

## Lactation Curves

The table below is an example of a lactation curve for a cow yielding 7,000 litres and can be used for budgeting purposes.

| Month     | Month of calving |       |       |       |       |       |       |       |       |       |       |       |
|-----------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|           | Jan              | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   |
| January   | 12.3             | -     | -     | 4.7   | 6.4   | 7.4   | 8.5   | 9.6   | 10.6  | 11.8  | 12.9  | 13.4  |
| February  | 12.0             | 11.0  | -     | -     | 4.5   | 5.9   | 6.8   | 7.7   | 8.6   | 9.7   | 10.8  | 11.6  |
| March     | 13.0             | 13.5  | 12.4  | -     | -     | 5.3   | 6.8   | 7.7   | 8.6   | 9.8   | 10.9  | 12.0  |
| April     | 11.9             | 12.8  | 13.4  | 12.4  | -     | -     | 5.3   | 6.7   | 7.6   | 8.6   | 9.8   | 10.8  |
| May       | 12.1             | 13.2  | 14.3  | 15.1  | 14.1  | -     | -     | 6.0   | 7.5   | 8.6   | 9.7   | 10.8  |
| June      | 10.4             | 11.7  | 12.8  | 13.8  | 14.6  | 13.8  | -     | -     | 6.0   | 7.3   | 8.3   | 9.4   |
| July      | 8.7              | 9.9   | 11.0  | 12.0  | 13.2  | 14.1  | 13.1  | -     | -     | 5.5   | 6.9   | 7.9   |
| August    | 7.5              | 8.5   | 9.4   | 10.6  | 11.7  | 13.0  | 13.9  | 12.8  | -     | -     | 5.3   | 6.6   |
| September | 6.7              | 7.5   | 8.4   | 9.5   | 10.8  | 12.0  | 13.4  | 13.9  | 12.8  | -     | -     | 5.3   |
| October   | 5.4              | 6.8   | 7.6   | 8.6   | 9.7   | 11.2  | 12.5  | 13.6  | 14.2  | 13.1  | -     | -     |
| November  | -                | 5.1   | 6.1   | 7.0   | 7.9   | 9.1   | 10.3  | 11.5  | 12.5  | 13.0  | 12.1  | -     |
| December  | -                | -     | 4.6   | 6.3   | 7.1   | 8.2   | 9.4   | 10.5  | 11.6  | 12.6  | 13.3  | 12.2  |
|           | 100.0            | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

These figures are broadly applicable to other yield levels.

It should be noted that the figures are intended only as a general guide and that annual yield, milking frequency, lactation number, calving index, feeding regime and geographical area will all affect the actual curve obtained.

## Dairy Cow - Summary of Assumptions

### (a) Milk Price 2026

The following gross margins include four annual yield levels, based on average production of 1,000,000 litres per annum:

| Litres /cow | Calving system | Contract type | Average price (ppl) * |
|-------------|----------------|---------------|-----------------------|
| 5,000       | Spring         | Manufacturing | 32.0                  |
| 7,000       | All year round | Manufacturing | 32.0                  |
| 8,500       | All year round | Liquid        | 30.5                  |
| 10,000      | All year round | Liquid        | 30.5                  |

\* Use price sensitivity to change gross margins to reflect current milk price.

Note that calving system and contract type are not specific to average yield per cow and it is not unusual for higher yielding herds to be on manufacturing contracts. Similarly, block calving herds (whether spring or autumn or both, are capable of much higher yields than 5,000 litres).

### (b) Feeding

The systems shown are all based on a grass silage feeding regime. As milk yield increases, forage quality becomes more critical. Although high milk yields can be achieved using conventional systems based on grass, grass silage and concentrates, the inclusion of a second forage, such as a wholecrop cereal or maize silage, will normally enhance intake and performance as will forage replacers such as draff or grainbeet along with other distillery by-products, fodder beet and potatoes. To avoid excessive concentrate use (target concentrate use per litre should be less than 0.4kg), good grassland management and well-preserved grass silage with high intake characteristics are key. Multi-cut silage, with 4 or 5 cuts/year can improve forage quality and reduce demand for purchased concentrates and protein sources.

Many different feeding systems exist. A TMR (Total Mixed Ration) is where cows receive 100% of their nutrition in a mixed ration fed in the feed trough. PMR (Partial Mixed Ration) is where cows are fed a base ration with additional concentrates fed at a rate depending on their level of milk production. Typically, feeding to yield is based on providing 0.45kg concentrate per litre over the base ration through the parlour, robot or out of parlour feeders.

Dairy farmers can replace part or all the purchased compound dairy cake or blends with home mixes using home-grown cereals and purchased straights. These mixes typically cost around £20/t less than purchased product, but they do, however, incur greater demand on labour and machinery and require more storage

capacity.

**(c) Other livestock expenses**

These are based on commercial dairy herds and include milk recording, sawdust, dairy detergents, and feeding straw.

# Dairy Cow - Spring Block Calving

## PHYSICAL DATA

|                               |                       |
|-------------------------------|-----------------------|
| Calving period                | Spring<br><b>/cow</b> |
| Average annual yield (litres) | 5,000                 |
| Herd life (years)             | 5.0                   |
| Calving interval (days)       | 370                   |
| Cow size (kg)                 | 500                   |
| Feed requirements (kg):       |                       |
| Silage                        | 5,500                 |
| Concentrates                  | 750                   |
| Concentrates fed (kg/litre)   | 0.15                  |
| Overall forage area (ha):     |                       |
| Silage & aftermath grazing    | 0.11                  |
| Grazing                       | 0.33                  |
| Total                         | <u>0.44</u>           |

### *Basis of data:*

1. A spring calving herd managed on a low input system. Calving between February and April. Maximum utilisation of grazed grass - 150 days winter feeding period.
2. A herd of 200 cows producing 1 million litres, assumed at 4.4% BF and 3.5% Protein.
3. The dry cow diet includes 165kg feeding straw (based on an inclusion of 3kg/hd/day over a 55 day dry period).
4. Calf sale/transfer value is an average of dairy heifers, males and beef cross calves at £164.75/hd then adjusted for calving interval and mortality. The calf value can be altered by £9.27 for each £10 difference in the sale/transfer price.
5. Cull cow sale price of £686.25/hd has been adjusted for herd life and mortality. The annual share can be altered by £1.95 for each £10 difference in cull cow price.
6. Heifer purchase/transfer price varies according to yield. A purchase price equating to 18ppl has been used. This has been adjusted for herd life and mortality. The annual share can be altered by £2.08 for each £10 difference in purchase/transfer price.

## Dairy Cow - Spring Block Calving

### GROSS MARGIN DATA

|                                   |  |
|-----------------------------------|--|
| Calving period                    | Spring                                 |
|                                   | <b>/cow</b>                            |
| Average annual yield (litres)     | 5,000                                  |
| OUTPUT                            |  |
| Spring milk @ 32 p/litre          | 1,600                                  |
| Calf value                        | 337                                    |
| Cull cow (annual share)           | 173                                    |
|                                   | <hr/>                                  |
|                                   | 2,110                                  |
| Heifer replacement (annual share) | 187                                    |
|                                   | <hr/>                                  |
|                                   | 1,923                                  |
| VARIABLE COSTS                    |  |
| Concentrates @ £300/t             | 225                                    |
| AI                                | 63                                     |
| Vet & medicines                   | 57                                     |
| Other livestock expenses          | 107                                    |
|                                   | <hr/>                                  |
|                                   | 452                                    |
| Gross Margin before forage        | <hr/>                                  |
|                                   | 1,471                                  |
| Forage variable costs:            |  |
| silage @ £675/ha                  | 74                                     |
|                                   |  |
| grazing @ £372/ha                 | 123                                    |
| Total Variable Costs              | <hr/>                                  |
|                                   | 649                                    |
| GROSS MARGIN £/cow                | <hr/>                                  |
|                                   | 1,274                                  |
| GROSS MARGIN £/forage ha          | <hr/>                                  |
|                                   | 2,895                                  |
| <b>Sensitivity-Change ±</b>       | <b>Change in Gross Margin/head (£)</b> |
| 1 p/litre in milk price           | 50                                     |
| £10/t in concentrate price        | 8                                      |

## Dairy Cow – Moderate Input

### PHYSICAL DATA

|                               |             |
|-------------------------------|-------------|
| Calving period                | All year    |
|                               | <b>/cow</b> |
| Average annual yield (litres) | 7,000       |
| Herd life (years)             | 4.2         |
| Calving interval (days)       | 380         |
| Cow size (kg)                 | 600         |
| Feed requirements (kg):       |             |
| Silage                        | 8,700       |
| Concentrates                  | 1,800       |
| Concentrates fed (kg/litre)   | 0.26        |
| Overall forage area (ha):     |             |
| Silage & aftermath grazing    | 0.17        |
| Grazing                       | 0.24        |
| Total                         | <u>0.41</u> |

#### *Basis of data:*

1. A moderate input system calving all year round; 200 days winter feeding period with cows at grass day and night during the grazing period.
2. A herd of 143 cows producing 1 million litres, assumed at 4.2% BF and 3.4% Protein.
3. The dry cow diet includes 115kg feeding straw (based on an inclusion of 3kg/hd/day over a 52 day dry period).
4. Calf sale/transfer value is an average of dairy heifers, males and beef cross calves at £166.00/hd then adjusted for calving interval and mortality. The calf value can be altered by £8.93 for each £10 difference in the sale/transfer price.
5. Cull cow sale price of £823.50/hd has been adjusted for herd life and mortality. The annual share can be altered by £2.34 for each £10 difference in cull cow price.
6. Heifer purchase/transfer price varies according to yield. A purchase price equating to 18ppl has been used. This has been adjusted for herd life and mortality. The annual share can be altered by £2.50 for each £10 difference in purchase/transfer price.

## Dairy Cow – Moderate Input

### GROSS MARGIN DATA

|                                   |                         |
|-----------------------------------|-------------------------|
| Calving period                    | All year<br><b>/cow</b> |
| Average annual yield (litres)     | 7,000                   |
| OUTPUT                            |                         |
| All year milk @ 32 p/litre        | 2,240                   |
| Calf value                        | 326                     |
| Cull cow (annual share)           | 248                     |
|                                   | <hr/>                   |
|                                   | 2,814                   |
| Heifer replacement (annual share) | 314                     |
|                                   | <hr/>                   |
|                                   | 2,500                   |
| VARIABLE COSTS                    |                         |
| Concentrates @ £300/t             | 540                     |
| AI                                | 67                      |
| Vet & medicines                   | 92                      |
| Other livestock expenses          | 107                     |
|                                   | <hr/>                   |
|                                   | 806                     |
| Gross Margin before forage        | <hr/>                   |
|                                   | 1,694                   |
| Forage variable costs:            |                         |
| silage @ £675/ha                  | 115                     |
|                                   |                         |
| grazing @ £372/ha                 | 89                      |
| Total Variable Costs              | <hr/>                   |
|                                   | 1,010                   |
| GROSS MARGIN £/cow                | <hr/>                   |
|                                   | 1,490                   |
| GROSS MARGIN £/forage ha          | <hr/>                   |
|                                   | 3,633                   |

### Sensitivity-Change ±

|                            |    |
|----------------------------|----|
| 1 p/litre in milk price    | 70 |
| £10/t in concentrate price | 18 |

### Change in Gross Margin/head (£)

## Dairy Cow – Moderate/High Output

### PHYSICAL DATA

|                               |             |
|-------------------------------|-------------|
| Calving period                | All year    |
|                               | <b>/cow</b> |
| Average annual yield (litres) | 8,500       |
| Herd life (years)             | 3.6         |
| Calving interval (days)       | 390         |
| Cow size (kg)                 | 650         |
| Feed requirements (kg):       |             |
| Silage                        | 11,200      |
| Concentrates                  | 2,800       |
| Concentrates fed (kg/litre)   | 0.33        |
| Overall forage area (ha):     |             |
| Silage & aftermath grazing    | 0.22        |
| Grazing                       | 0.24        |
| Total                         | <u>0.46</u> |

#### *Basis of data:*

1. A moderate input system calving all year round; 230 days winter feeding period. During the grazing period cows are housed at night and grazed during the day.
2. A herd of 118 cows producing 1 million litres assumed at 4.1% BF and 3.3% Protein.
3. The dry cow diet includes 160kg feeding straw (based on an inclusion of 4kg/hd/day over a 51 day dry period).
4. Calf sale/transfer value is an average of dairy heifers, males and beef cross calves at £203/hd then adjusted for calving interval and mortality. The calf value can be altered by £8.70 for each £10 difference in the sale/transfer price.
5. Cull cow sale price of £785/hd has been adjusted for herd life and mortality. The annual share can be altered by £2.71 for each £10 difference in cull cow price.
6. Heifer purchase/transfer price varies according to yield. A purchase price equating to 18ppl has been used. This has been adjusted for herd life and mortality. The annual share can be altered by £2.94 for each £10 difference in purchase/transfer price.

## Dairy Cow – Moderate/High Output

### GROSS MARGIN DATA

|                                   |                  |
|-----------------------------------|------------------|
| Calving period                    | All year<br>/cow |
| Average annual yield (litres)     | 8,500            |
| OUTPUT                            |                  |
| All year milk @ 30.5 p/litre      | 2,593            |
| Calf value                        | 135              |
| Cull cow (annual share)           | 276              |
|                                   | <hr/>            |
|                                   | 3,004            |
| Heifer replacement (annual share) | 450              |
|                                   | <hr/>            |
|                                   | 2,554            |
| VARIABLE COSTS                    |                  |
| Concentrates @ £300/t             | 840              |
| AI                                | 75               |
| Vet & medicines                   | 111              |
| Other livestock expenses          | 124              |
|                                   | <hr/>            |
|                                   | 1,149            |
| Gross Margin before forage        | <hr/>            |
|                                   | 1,405            |
| Forage variable costs:            |                  |
| silage @ £675/ha                  | 149              |
|                                   |                  |
| grazing @ £372/ha                 | 89               |
| Total Variable Costs              | <hr/>            |
|                                   | 1,387            |
| GROSS MARGIN £/cow                | <hr/>            |
|                                   | 1,167            |
| GROSS MARGIN £/forage ha          | <hr/>            |
|                                   | 2,536            |

#### Sensitivity-Change ±

|                            |    |
|----------------------------|----|
| 1 p/litre in milk price    | 85 |
| £10/t in concentrate price | 28 |

#### Change in Gross Margin/head (£)

# Dairy Cow - High Output

## PHYSICAL DATA

|                               |             |
|-------------------------------|-------------|
| Calving period                | All year    |
|                               | <b>/cow</b> |
| Average annual yield (litres) | 10,000      |
| Herd life (years)             | 3.0         |
| Calving interval (days)       | 400         |
| Cow size (kg)                 | 650         |
| Feed requirements (kg):       |             |
| Silage                        | 12,600      |
| Concentrates                  | 3,800       |
| Concentrates fed (kg/litre)   | 0.38        |
| Overall forage area (ha):     |             |
| Silage & aftermath grazing    | 0.24        |
| Grazing                       | 0.00        |
| Total                         | <u>0.24</u> |

### *Basis of data:*

1. A high input, high output system calving all year round and housed for 365 days on a complete winter ration (assumes no access to grass or zero grazing).
2. A herd of 100 cows producing 1 million litres assumed at 4.0% BF and 3.2% Protein.
3. The dry cow diet includes 245kg feeding straw (based on an inclusion of 5kg/hd/day over a 49 day dry period).
4. Calf sale/transfer value is an average of dairy heifers, males and beef cross calves at £213/hd then adjusted for calving interval and mortality. The calf value can be altered by £8.49 for each £10 difference in the sale/transfer price.
5. Cull cow sale price of £785.07/hd has been adjusted for herd life and mortality. The annual share can be altered by £3.11 for each £10 difference in cull cow price.
6. Heifer purchase/transfer price varies according to yield. A purchase price equating to 18ppl has been used. This has been adjusted for herd life and mortality. The annual share can be altered by £3.15 for each £10 difference in purchase/transfer price.

# Dairy Cow - High Output

## GROSS MARGIN DATA

|                                   |  |
|-----------------------------------|--|
| Calving period                    | All year<br><b>/cow</b>                |
| Average annual yield (litres)     | 10,000                                 |
| <b>OUTPUT</b>                     |  |
| All year milk @ 30.5 p/litre      | 3,050                                  |
| Calf value                        | 309                                    |
| Cull cow (annual share)           | 329                                    |
|                                   | <hr/>                                  |
|                                   | 3,688                                  |
| Heifer replacement (annual share) | 567                                    |
|                                   | <hr/>                                  |
|                                   | 3,121                                  |
| <b>VARIABLE COSTS</b>             |  |
| Concentrates @ £300/t             | 1,140                                  |
| AI                                | 77                                     |
| Vet & medicines                   | 131                                    |
| Other livestock expenses          | 141                                    |
|                                   | <hr/>                                  |
|                                   | 1,489                                  |
| Gross Margin before forage        | <hr/>                                  |
|                                   | 1,632                                  |
| Forage variable costs:            |  |
| silage @ £675/ha                  | 162                                    |
| grazing @ £372/ha                 | -                                      |
| Total Variable Costs              | <hr/>                                  |
|                                   | 1,651                                  |
| GROSS MARGIN £/cow                | <hr/>                                  |
|                                   | 1,470                                  |
| GROSS MARGIN £/forage ha          | <hr/>                                  |
|                                   | 6,124                                  |
| <b>Sensitivity-Change ±</b>       | <b>Change in Gross Margin/head (£)</b> |
| 1 p/litre in milk price           | 100                                    |
| £10/t in concentrate price        | 38                                     |

## Replacement Heifer Rearing

### Fodder requirements of Holstein Friesian heifers

The following tables provide forage data to budget for the cost of replacement heifers.

|                             |      | Approx.<br>closing<br>lwt (kg) | Heifer<br>grazing<br>(days) | Mainly silage ration |               |                |
|-----------------------------|------|--------------------------------|-----------------------------|----------------------|---------------|----------------|
|                             |      |                                |                             | Conc<br>(kg)         | Straw<br>(kg) | Silage<br>(kg) |
| <b>Early autumn</b>         |      |                                |                             |                      |               |                |
| <b>(1st Sept)/24 months</b> |      |                                |                             |                      |               |                |
| Birth                       |      | 40                             | -                           | -                    | -             | -              |
| 0-3                         | S-N  | 110                            | -                           | 140                  | 45            | -              |
| 4-8                         | D-A  | 220                            | -                           | 410                  | 135           | 800            |
| 9-14                        | My-O | 355                            | 123                         | 125                  | -             | 1,160          |
| 15-20                       | N-A  | 490                            | -                           | 275                  | -             | 4,290          |
| 21-24                       | My-A | 585                            | 102                         | 42                   | 85            | 440            |
| Total                       |      |                                | <u>225</u>                  | <u>992</u>           | <u>265</u>    | <u>6,690</u>   |

**Forage (ha)**                      0.21                      -                      -                      0.13

### **Early spring** **(1st April)/24 months**

|       |      |     |           |              |            |              |
|-------|------|-----|-----------|--------------|------------|--------------|
| Birth |      | 40  | -         | -            | -          | -            |
| 0-3   | A-J  | 110 | -         | 140          | 45         | -            |
| 4-8   | J-N  | 220 | -         | 415          | 140        | 800          |
| 9-14  | D-My | 355 | -         | 275          | -          | 3,150        |
| 15-20 | J-N  | 490 | 61        | 185          | -          | 2,890        |
| 21-24 | D-M  | 585 | -         | 205          | 170        | 2,910        |
| Total |      |     | <u>61</u> | <u>1,220</u> | <u>355</u> | <u>9,750</u> |

**Forage (ha)**                      0.06                      -                      -                      0.19

|                              |      | Approx.<br>closing<br>lwt (kg) | Heifer<br>grazing<br>(days) | Mainly silage ration |               |                |
|------------------------------|------|--------------------------------|-----------------------------|----------------------|---------------|----------------|
|                              |      |                                |                             | Conc<br>(kg)         | Straw<br>(kg) | Silage<br>(kg) |
| <b>Early autumn</b>          |      |                                |                             |                      |               |                |
| <b>(1st Sept)/27 months</b>  |      |                                |                             |                      |               |                |
| Birth                        |      | 40                             | -                           | -                    | -             | -              |
| 0-3                          | S-N  | 100                            | -                           | 170                  | 45            | -              |
| 4-8                          | D-A  | 205                            | -                           | 330                  | 180           | 820            |
| 9-14                         | My-O | 335                            | 153                         | 47                   | -             | 560            |
| 15-20                        | N-A  | 455                            | -                           | 275                  | -             | 4,100          |
| 21-27                        | My-N | 600                            | 153                         | 60                   | 185           | 1,735          |
| Total                        |      | -                              | <u>306</u>                  | <u>882</u>           | <u>410</u>    | <u>7,215</u>   |
| <b>Forage (ha)</b>           |      |                                | 0.29                        | -                    | -             | 0.18           |
| <b>Early spring</b>          |      |                                |                             |                      |               |                |
| <b>(1st April)/27 months</b> |      |                                |                             |                      |               |                |
| Birth                        |      | 40                             | -                           | -                    | -             | -              |
| 0-3                          | A-J  | 100                            | -                           | 170                  | 45            | -              |
| 4-8                          | J-N  | 205                            | -                           | 335                  | 185           | 820            |
| 9-14                         | D-My | 335                            | 50                          | 200                  | -             | 1,980          |
| 15-20                        | J-N  | 455                            | 122                         | 60                   | -             | 1,630          |
| 21-27                        | D-M  | 600                            | 60                          | 155                  | 63            | 4,565          |
| Total                        |      | -                              | <u>232</u>                  | <u>920</u>           | <u>293</u>    | <u>8,995</u>   |
| <b>Forage (ha)</b>           |      |                                | 0.23                        | -                    | -             | 0.22           |

## Replacement Heifer Rearing

### PHYSICAL DATA

| Time of birth                 | Early autumn         | Early spring     | Early autumn               | Early spring  |
|-------------------------------|----------------------|------------------|----------------------------|---------------|
| Age at calving                | 24 months            | 24 months        | 27 months                  | 27 months     |
| Ration type                   | Mainly silage        | Mainly silage    | Mainly silage              | Mainly silage |
| Milk, whole                   | litre                | 0                | 0                          | 0             |
| Milk, substitute              | kg                   | 45               | 45                         | 45            |
| Concentrates:                 |                      |                  |                            |               |
| starter (proprietary)         | kg                   | 90               | 90                         | 110           |
| rearer                        | kg                   | 360              | 360                        | 325           |
| cereal mix                    | kg                   | 542              | 770                        | 447           |
| straw                         | kg                   | 265              | 355                        | 410           |
| Forage: silage                | kg                   | 6,690            | 9,750                      | 7,215         |
| silage                        | ha                   | 0.13             | 0.19                       | 0.18          |
| grazing                       | ha                   | 0.21             | 0.06                       | 0.29          |
| Total forage                  | ha                   | 0.34             | 0.25                       | 0.47          |
| <i>Basis of data:</i>         |                      |                  |                            |               |
| (a) <b>Quality of forage:</b> | <b>ME (MJ/kg DM)</b> | <b>DM (g/kg)</b> | <b>'Substitution Rate'</b> |               |
| Silage - 24m calving          | 11.0                 | 300              | 3 - 3.5                    |               |
| Silage - 27m calving          | 10.5                 | 300              | 3 - 3.5                    |               |
| Straw                         | 6.3                  | 850              | 1                          |               |

- (b) The forage hectares shown are derived from the Grassland section for silage (310 kgN, 3 cuts for heifers calving at 24 months; 220 kgN, 2 cuts for heifers calving at 27 months and grazing (175 kgN). The hectares for silage include a proportion of aftermath grazing, which in turn has been deducted from the grazing requirement.
- (c) Intensification of grazing can save up to 25% of the area allocated.

## Replacement Heifer Rearing

### GROSS MARGIN DATA

| Time of birth                       | Early autumn        | Early spring        | Early autumn      | Early spring      |
|-------------------------------------|---------------------|---------------------|-------------------|-------------------|
| <b>Age at calving</b>               | <b>24 months</b>    | <b>24 months</b>    | <b>27 months</b>  | <b>27 months</b>  |
| Ration type                         | Mainly silage       | Mainly silage       | Mainly silage     | Mainly silage     |
| OUTPUT - Heifer at calving          | 1,850               | 1,850               | 1,850             | 1,850             |
| Less heifer calf                    | 298                 | 298                 | 298               | 298               |
|                                     | <u>1,552</u>        | <u>1,552</u>        | <u>1,552</u>      | <u>1,552</u>      |
| <b>VARIABLE COSTS</b>               |                     |                     |                   |                   |
| Milk, whole @ 31.25 p/litre         | 0                   | 0                   | 0                 | 0                 |
| Milk, substitute @ £2400/t          | 108                 | 108                 | 108               | 108               |
| Concentrates starters @ £336/t      | 30                  | 30                  | 37                | 37                |
| rearing @ £315/t                    | 113                 | 113                 | 102               | 102               |
| mainly cereal mix @ £240/t          | 130                 | 185                 | 107               | 116               |
| straw @ £115/t                      | 30                  | 41                  | 47                | 34                |
| Vet & medicines                     | 47                  | 47                  | 47                | 47                |
| AI & other livestock expenses       | 76                  | 76                  | 76                | 76                |
|                                     | <u>534</u>          | <u>600</u>          | <u>524</u>        | <u>520</u>        |
| Gross margin before forage          | <u>1,018</u>        | <u>952</u>          | <u>1,028</u>      | <u>1,032</u>      |
| Forage variable costs:              |                     |                     |                   |                   |
| silage @ £675/ha, silage @ £540/ha, | 88                  | 128                 | 97                | 120               |
| grazing @ £268/ha                   | 56                  | 16                  | 78                | 62                |
|                                     | <u>678</u>          | <u>744</u>          | <u>699</u>        | <u>702</u>        |
| Total Variable costs                | <u>874</u>          | <u>808</u>          | <u>853</u>        | <u>850</u>        |
| GROSS MARGIN (birth to calving)     | <u>2,571 (1040)</u> | <u>3,232 (1308)</u> | <u>1813 (734)</u> | <u>1879 (760)</u> |

Note: The calf price of £380 and value of heifer sold of £2,000 have been adjusted to allow for mortality (5-10%) and barren and reject heifers (5-10%) respectively.

## Contract Dairy Heifer Rearing

Contract rearing dairy heifers by a dedicated rearer allows the farmer to focus purely on the milking herd and reduces time and resources previously allocated to youngstock.

As achieving target body weight at different stages throughout the rearing process is the basis of efficient heifer rearing programmes, contracts are often based on certain targets being met, such as growth rate, age at first service and age at first calving. The aim should be for heifers calving at 22-24 months to reach 85-90% of mature body weight at calving.

Contract rearers tend to take delivery of heifers from between 2 to 4 months of age, returning them to the dairy farmer at 4 to 6 weeks before calving.

There are various types of contract:

- *Contract payment based on per animal per day.* This is where the farmer pays a flat rate fee per head per day based on the actual rearing costs.
- *Weight gain on a per kilogram basis contract.* The difference between the delivery weight to the rearer and the return weight to the farmer is divided by the number of days to determine the growth rate per day. The danger with this type of contract is that the rearer must avoid producing heifers that are over-conditioned.
- *Sell and buy-back contract.* The rearer buys the calves at an agreed price, with the farmer retaining the right to buy back the heifers 4 to 6 weeks prior to calving. The rearer retains control of the system but is responsible for all costs and losses incurred. The farmer runs the risk of buying back heifers at an age or weight that is not desirable in their system.
- *Labour and facilities only contract.* A contract where the farmer stipulates the rearing policy and covers all costs such as feed, semen, veterinary medicines, and transport costs (as well as any losses). The rearer only provides the labour and facilities.

Care must be taken to ensure that both the rearer and the dairy farmer's responsibilities are clearly defined, including performance targets and who covers what costs. The rearer should have insurance to cover any third-party claims involving the heifers in his care.

A summary of charges is given below. These are based on the rearer paying all costs associated with the heifers in their care, excluding transport.

|  | <b>£/day</b> | <b>Charge<br/>£/month</b> |
|--|--------------|---------------------------|
| From 14 days to 3 months of age                    | 1.99         | 59.38                     |
| From 3 months to pre-calving (at 22 months of age) | 2.05         | 61.50                     |

These are based on the requirements for a spring born heifer calving at 24 months.