

British Milk – What Price 2006?

National Farmers' Union
and
Royal Association of British Dairy Farmers

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Introduction

Dairy farmers have continued to face economic difficulties in the last 12 months. Confidence is being eroded as a consequence of uncertain market signals and cuts to milk prices that have occurred since the autumn of 2005. This loss of confidence is being compounded by further increases in costs of production at farm level.

The NFU and RABDF have collaborated using their respective expertise to quantify the impact of production cost increases at farm level that were initially identified last year in the NFU document, 'British Milk – What Price 2005'. This led to some milk price increases in the spring of 2005, which were swiftly eroded to the extent that most dairy farmers find themselves in a poorer economic position now than at the start of 2005.

In this latest document, we provide a detailed appraisal of on-farm production cost increases and explore a number of related themes that are impacting on the economic environment of dairy farming including:

- Increases in farm costs of production
- Environmental costs
- The market context
- Treatment of Single Payment Scheme
- Farmer confidence

The NFU and RABDF share the belief that these issues point to a need to drive inflation up the supply chain in order to protect the sustainability of dairy farming.

1) Increases in farm costs of production

In order to assess the cost of milk production in 2005/06, the data produced in the Economics of Milk Production Survey 2002/03 report (Colman, Farrar and Zhuang) by the University of Manchester has been used as a template. Agricultural indices from the past three milk years have been applied to the original figures, the results of which are shown on Page 5 of this report. The analysis does not take account of potential increases in farmer efficiency that may have occurred over the same time period, which may have mitigated the impact of these cost increases to some extent.

Fuel Costs

Total Income From Farming (TIFF) figures reveal that the biggest increase in production costs since 2003 came from energy costs, which have risen by 25 %, as a result of increasing gas and oil prices. Whilst fuel is not one of the main costs dairy enterprises incur, an increase in the price of fuel does have cost implications on several dairy operations, such as feeding and bedding. The rise in gas prices has also dramatically affected fertiliser prices.

Labour Costs

Since the Economics of Milk Production Survey was carried out in 2002/03, labour costs have unsurprisingly increased. Because the 2002 Agricultural Wages Board (AWB) proposals were

not announced until October, the 2001 AWB wage rates would have been in use for the first six months of the 2002/03 milk year. Therefore five years of AWB rounds have been utilised in order to calculate as accurately as possible the percentage changes in wage rates from the beginning of the 2002/03 milk year to the end of the 2005/06 milk year.

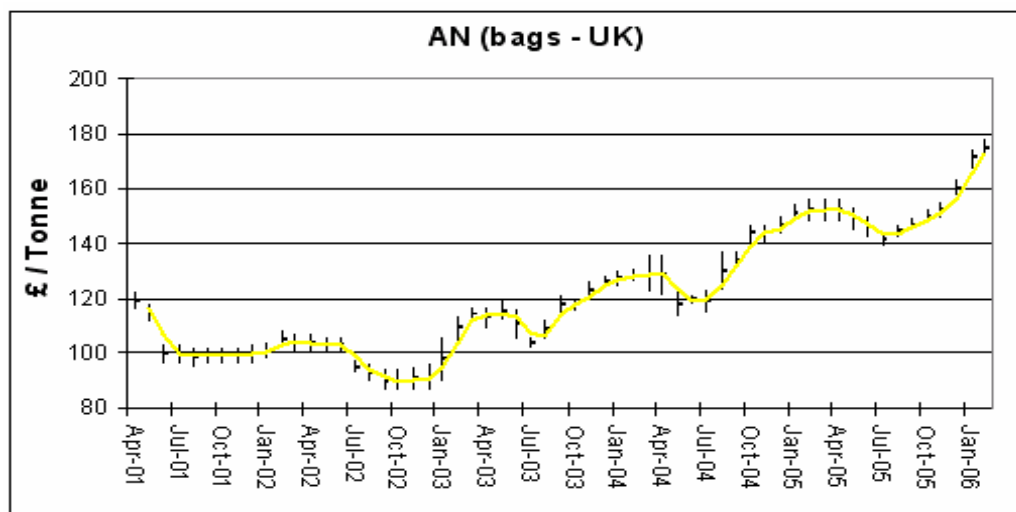
The percentage changes in labour for the 2005/06 milk year have been calculated according to skill level, using different AWB wage grades. Dairy specific labour and the Overhead Other Employed Labour have been costed at AWB Grade 1 rates. Between the 2002/03 milk year and 2005/06 milk year, wages in this category have risen by 12.61%. Forage labour has been costed as AWB Craft worker rates, which has increased by 12.89%. Casual labour has been costed at AWB Standard Adult rates, which have seen a change in wage rate of 13.43%. The value of the family labour portion of the total dairy labour has been backed up by applying inflationary rates to the findings of the RABDF 2004 study “Identifying the True Costs of Farmers’ Own Labour”.

Feed Costs

Feed costs have fluctuated over the last three years. They rose in the summer of 2003 as a result of the drought affecting mainland Europe. Subsequently, costs fell in the beginning of 2004 and continued to do so following the wet harvest season experienced that year. In 2005, prices increased slightly and have remained fairly stable since. When comparing feed costs from 2002/03 and 2005/06, concentrate costs have increased by 1.74%, and bulk feed costs have risen by 5.11%. This does not fully represent the fluctuations farmers have had to contend with during this timeframe.

Fertiliser costs

The graph below charts the sharp increases in the costs of Ammonium Nitrate (AN) since April 2001. From the start of the milk year in April 2002 through to January 2006, prices increased from £105 to £160 per tonne, which is a 52% increase. However, recent reports suggest AN prices have risen to as much as £175/tonne.



Source MDC Datum

Herd Replacement Costs

Since the ending of the Over Thirty Month Scheme (OTMS), average prices for dairy cull cows have increased by 9%. Demand for these animals has been stronger than anticipated by many farmers. A significant number of cull cows were sold prior to the end of the OTMS in order to avoid risking the uncertainty of the open market. Dairy farmers will need to budget carefully when calculating the additional input costs required for finishing cows. Any animals that do not meet the required specification will have to be put through the fallen stock scheme, which may prove to be the more cost effective option in some cases.

Herd replacement costs have risen by 9.81% since 2002/03. This is as a result of the inputs that go into rearing replacements increasing, in particular labour, feed costs and general overheads.

Interest Charges

Interest charges were not included in the Economics of Milk Production Survey 2002/03. However, the fact is that many dairy farmers have such overheads, and are having to borrow more and more in order to remain in production. The Bank of England recently released figures stating that at the end of December 2005, farming debt in the UK stood at £9.218 billion, 11% higher than in December 2004. It is extremely difficult to quantify an average interest charge rate specifically for dairy enterprises. The general consensus throughout the industry is that the average cost of interest charges on dairy farms ranges between 0.50ppl and 0.80ppl. For the purpose of producing a realistic estimate on the average cost of milk production 2005/06, a lower range notional figure of 0.50ppl has been included.

Overall cost increase

The table on Page 5 documents the changes in the costs of milk production between 2002/03 and 2005/06 and demonstrates an 11.07% increase overall. These figures do not account for business reinvestment, which is **vital** to allow dairy businesses to progress and be sustainable in the long term.

According to DEFRA, the average milk price in the UK in January 2006 was 18.72ppl. Since then farm gate price cuts have been announced and the average price is expected to decrease further as a result. This contrasts starkly with an average production cost according to our figures (accepting the caveats previously made) of 20.34ppl.

VARIABLE COSTS	Cost 2002/2003 Pence/ litre	Cost 2005/2006 Pence/ litre	Difference 02/03 vs 05/06 Pence/ litre	Approx % Change	Factors Contributing to Change
Herd Replacement Costs	1.21	1.33	0.12	9.81	AWB inflation and general inflation
Concentrates	3.62	3.68	0.06	1.74	Inflationary costs
Bulk Feeds	0.30	0.32	0.02	5.11	Inflationary costs, fuel prices
Bedding	0.25	0.28	0.03	11.92	Inflationary costs, fuel prices
Vet & Medicines	0.57	0.60	0.03	5.77	Inflationary costs
AI & Bull Hire	0.34	0.45	0.11	33.33	Inflationary costs
Recording & Consultancy Fees	0.18	0.20	0.02	11.11	Inflationary costs
Consumables, Dairy Sundries	0.45	0.51	0.06	13.96	Inflationary costs
Contract Work (Excluding Forage)	0.13	0.18	0.05	38.46	AWB and fuel inflation
Casual Labour	0.11	0.12	0.01	13.43	AWB inflationary changes
Forage Variable Costs	1.32	1.69	0.37	28.03	AWB inflation, fuel & gas prices, inflation
Milk Quota Leased In (Net of Quota Leased Out)	0.25	0.10	-0.15	-61.50	Fluctuation in value of leased quota
TOTAL VARIABLE COSTS (A)	8.73	9.46	0.73	8.36	
FIXED COSTS					
Dairy Specific Labour	3.75	4.23	0.48	12.61	AWB inflationary changes
Forage Labour	0.20	0.23	0.03	12.89	AWB inflationary changes
Direct Machinery & Equipment	1.29	1.32	0.03	2.63	Inflationary costs
Forage Machinery	0.34	0.41	0.07	19.38	Inflation and increased cost of fuel
Dairy Specific Buildings	0.50	0.57	0.07	14.22	Increased cost of steel, inflation
Annualised Charge for Purchased Quota	0.55	0.55	0.00	0.00	Not comparable
Net Field Rent	1.33	1.24	-0.09	-6.81	Reduction in tenant rent rate
Interest Charges		0.50	0.50		Not comparable to 2002/03 results
TOTAL FIXED COSTS (Before Overheads) (B)	7.96	9.05	1.09	13.69	
OVERHEAD COSTS					
Other Employed Labour	0.49	0.55	0.06	12.61	AWB inflationary changes
Machinery	0.17	0.20	0.03	17.09	Increased cost of fuel
Buildings	0.08	0.09	0.01	14.22	Increased cost of steel, inflation
General Overheads	0.88	0.99	0.11	12.50	Increased cost of electricity, water etc
TOTAL OVERHEAD COSTS (C)	1.62	1.83	0.21	12.96	
TOTAL COSTS (A) + (B) + (C)	18.33	20.34	2.03	11.07	

2) Environmental Regulations

Waste Regulations

Whilst not yet implemented in the UK, the agricultural waste regulations are due to come into force in the Spring of 2006. These regulations apply to discarded pesticide containers, silage wrap, tyres, batteries and oil. Unregulated burning or burying of waste on farm will be prohibited and farm dumps or tips should be closed and no longer used as soon as the regulation come into force. The additional costs involved in the disposal of these items will depend on the farm size and availability of collection services, but if an average 100-cow dairy unit is using baled silage, then disposal costs could amount to 30p per bale therefore £360 per year. Disposing of silage clamp sheets, if using 3 new sheets per year, then around £45/year would be an average cost. The collection of plastic drums and fertiliser bags could amount to around £60 per year. The other issue is that of waste oil, which will be classed as a hazardous substance. As a lot of farmers maintain their own machinery, the costs of disposing of oil could amount to a further £200 per year. These costs were collated from a North East collection service. Overall, depending on the system used, costs could amount to an additional £600+ each year.

NVZ Measures

The current action plan for Nitrate Vulnerable Zones in England and Wales has been in place since 2002. This places controls and restrictions on the use of manures and slurries in NVZs, which cover 55% of England. However, the Government has faced infraction proceedings from the EU Commission for failing to implement the Directive properly and is now examining proposals to significantly tighten the Nitrates Action Plan. A formal consultation is due in the coming weeks, although informal consultation has taken place with the industry.

The proposals, as well as potentially tightening current derogations that exist in England and Wales on the maximum whole farm manure loading rate (of 250kg/ha on grassland), are also expected to significantly extend the current closed periods for slurry application and will require increases in mandatory storage capacity for slurry. This will come at significant cost to the industry.

3) The Market Context

The global dairy market is showing continued stability as a result of buoyant global demand. In terms of the EU commodity market, prices for butter have more recently tended to reflect cuts in support prices resulting from the CAP reform deal in 2005. However, SMP prices remain some way above intervention prices. This is reflected in an AMPE figure in February 2006 of 17.3ppl (compared 17.8ppl for the same month in 2005). Increasing demand for calf feed, partly as a result of avian influenza and a further weakening of the Pound against the Euro bode well for powder prices particularly.

The cheese market appears firm at EU level. Production in the EU25 was 1.9% higher than the corresponding period in 2004, and consumption figures are 0.6% higher than previously anticipated by the EU. Some commentators suggest that EU manufacturers will increasingly move away from butter production and will further increase cheese output which, if out of

line with demand (growing at 2.3% in the EU up to October 2005) could lead to some weakening of the market.

Demand has remained firm for cheddar cheese in the UK over the last 12 months with little weakening of prices in spite of higher production of cheese by processors. Sales of cheese have grown by 0.75% in the last year, but the total market is growing by 2.5% per annum. Prices currently are being helped by the extremely high price of whey powder, which is offering important additional income to milk processors. The MDC Milk for Cheese Value Equivalent (MCVE) calculation for February stands at 21.34ppl. That said, there are growing concerns about the balance of the cheese market in the UK going forward and it is therefore imperative that the industry continues to manage supply and demand in the cheese market effectively.

The Cream Factor

Several milk buyers have reduced milk prices as a result of falling values of commodity cream. Major quantities of cream are produced as a by-product of fresh liquid milk production and are sold onto manufacturers in the UK and abroad, often for butter manufacture. The prices for this product tend to follow the price of butter and according to the MDC (which has produced a new cream calculator, commodity cream prices have fallen by about 0.44ppl (raw milk equivalent) since October 2005. This has therefore been used as a justification for milk price cuts.

However, not all the surplus cream that is produced by farmers is sold onto commodity cream markets. Some, and possibly as much as half in the case of certain companies, is sold into other markets with higher added value such as potted fresh cream or dairy spreads. These markets are not subject to the same commodity market pressures. In addition to this, the amount of surplus cream available to processors is increasing because of the fall in the average fat content of liquid milk as consumers switch towards fat free milk. Since the retail prices of skimmed, semi-skimmed and whole milk are the same and therefore, we can assume the cost prices to the processor are the same, there should be more additional revenue available to processors from cream. Commodity cream prices are a relevant market factor, but farmers must be careful in considering arguments surrounding the cream factor.

Moreover, if commodity cream is to be treated as a by-product, then it should be treated as such in raw milk contracts and variations in the market price should not impact on base prices.

4) Treatment of the Single Payment Scheme (SPS)

The treatment of SPS within the supply chain is an important issue to quantify, as there has been speculation about the rationale behind the single payment. The SPS was introduced to simplify the delivery of support payments to farmers and to decouple them from production. In order to receive the payment, farmers must meet the requirements of cross compliance, and to deliver public benefit in the form of maintaining and enhancing the countryside. The preface to the most recent SPS guide states that 'the farming industry now has an opportunity to compete freely in the market, unhindered by the historic constraints of the CAP. At the same time, we are creating a framework in which farmers **are rewarded** for the responsible

management of our landscape and natural resources.’ This statement clearly articulates that it is not the intention for SPS payments to offset lower milk prices nor should these payments be recouped further up the supply chain.

It is suggested that direct payments to dairy farmers were introduced to compensate for support price cuts. This may have originally been the case, but since the payments were decoupled in 2005 and are not conditional on a farmer producing milk they cannot be quantified as a compensatory payment. Moreover, the support payment intended for dairy farmers was only designed to account for 60% of the support price cuts.

With an increasing proportion of the regional flat rate element of the payment, SPS payments to most dairy farmers in England will be heavily eroded over the next 8 years. This is further exacerbated in upland areas, where dairy farmers will see an even greater impact on their payment owing to the lower payment rate in Severely Disadvantaged Areas of England.

Other deductions must also be accounted for such as modulation and financial discipline. The former has been set at 10% in England for 2006. Together with deductions for the national reserve, this will amount to 14.2% off the SPS for England for 2006. As rural development funding to the EU-15 is expected to reduce as a result of the 2005 EU budget deal, the NFU is concerned that English farmers will face higher levels of modulation to maintain commitments to agri-environment schemes, particularly if the government chooses not to match fund contributions from the EU. On the issue of financial discipline, the decision to retain predicted budget ceilings in spite of the forthcoming accession of Romania and Bulgaria could result in deductions of 7-8% for the EU-15. When all of the above have been accounted for in a farm SPS calculation, the impact could be significant:

EXAMPLE:

Assumptions:

- Final area payment = £167.63/ ha (based on RPA announcement on 16.02.06)
- 1,000,000 litres of milk quota
- 85 ha of SDA land

	2005	2006	2007	2008	2009	2010	2011	2012
Gross Payment	16,724	23,897	22,195	20,492	18,789	17,086	15,384	14,249
Deductions	1,539	2,390	3,551	3,279	3,006	2,734	2,461	2,280
Final Payment	15,185	21,507	18,644	17,213	15,783	14,352	12,923	11,969

*Assumptions as follows: 2005 dairy premium as 1.70ppl and 2.56ppl from 2006, national reserve deduction of 4.2% in 2005, modulation rates of 5% in 2005, and 10% from 2006 onwards, and 6% financial discipline from 2007.

As is clearly highlighted above, the depletion of Single Payments is considerable at some 21%, and as has already been stated, should not be factored into any milk price negotiations. The estimates for deductions listed above are also extremely conservative, and could be considerably higher, depending on future negotiations within the EU.

5) Farmer Confidence

UK milk production is running a projected 395 million litres under national quota. There could be a multitude of reasons behind this, and will indeed be the subject of a piece of research by the Milk Development Council (MDC) on the future business intentions of dairy farmers. Poor silage quality has been cited as one of the reasons behind lower milk production, however, as feed prices have not been unreasonable, why haven't farmers sought to supplement? There could be three main factors contributing to this occurrence:

- 1) Decreasing national herd
- 2) Implications of Single Payment Scheme
- 3) Lack of confidence in the future

1) Decreasing national herd

The MDC states that provisional figures for the June 2005 census show that cow numbers have fallen by 2.8% since June 2004 to 2,071,000 cows. This continuing decline might explain part of the reason for low milk production in recent years

2) Implications of Single Payment Scheme

The continuing saga of the Single Payment Scheme has caused an immense amount of frustration. Following the definitive establishment of entitlement values on 14 February, the first payments have started to be made, but they are merely trickling through and severe problems remain with the Rural Payments Agency which mean that the majority of payments are unlikely to be with farmers before the end of March 2006. This is having severe cash flow implications across the entire agricultural sector, which in turn will have knock-on effects for input and feed suppliers and for the ability of dairy farmers to fund much-needed re-investment.

3) Lack of confidence in the future

It is in fact the third scenario that presents the biggest concern. If production levels are dropping owing to a lack of confidence in the dairy industry, then the long-term implications of this could present a real threat to our ability to compete in the future.

In August 2005, a piece of work was released by Defra's milk branch which was undertaken by Professor David Colman at the University of Manchester on changes in England and Wales dairy farming since 2002/3. The aim of this work was to revisit farm surveys carried out in April 2003 to investigate any changes that may have taken place since the original survey, which in turn would provide a basis for re-assessing the future of dairy farming in the UK. Some of the findings were alarming, in particular:

- 12.4% of the original sample of farms used in 2002/3 have ceased production

- Amongst those leaving, a higher concentration of more profitable and larger herds than could have been expected had left the industry
- The report reinforces previous analysis that UK milk output could fall by over 1 billion litres in the face of a sharp and significant decline in milk prices
- Milk producers in Less Favoured Areas (LFAs) are more likely to leave than those outside of LFA.

The outcomes of this report present a clear message. In order to compete in the future, dairy farmers need to receive the right signals from the rest of the supply chain or the serious decline in producer numbers and milk production will continue.

Summary

This document has detailed the increases in production costs since 2002/3, and highlighted that farm gate milk prices have not risen sufficiently to cover them. Milk consumption is improving and whilst there will be challenges over the next few months, there are many consumer trends which suggest a better future. Our industry's ability to seize these opportunities requires stability. The confidence of dairy farmers in the future of the industry is deteriorating, as are the numbers of farmers who remain in production. Without them, there is no infrastructure to provide a dynamic and competitive dairy industry.

Tit-for-tat pricing decisions in the liquid milk sector in particular that have dominated headlines over the past year have led to an undermining of confidence. The NFU Vision for the Dairy industry launched in the Autumn of 2005 aims to drive new thinking and change into the dairy industry.

The revision of raw milk contracts, market related pricing, and instilling the need for change across all links in the chain are all-intrinsic to the future success of the industry according to the Vision. Some achievements have been made, however in order to continue this momentum the industry needs a stable pricing platform.

Retail milk prices increased in January in order to compensate for increases in processing costs. It was encouraging to see processors engaging with retailers to account for these increases up the supply chain, instead of these costs being passed back down to the farm gate. However, recent decisions to reduce retail liquid milk prices are creating anxiety amongst producers and processors.

With milk producers potentially losing in excess of 1.5ppl according to our figures, the NFU and RABDF believe that it is imperative that increases in farm costs in recent years are acknowledged by the supply chain and remedial action is taken in order to protect the long-term viability of the dairy farming industry.