

# **INTERNATIONAL COMPARISON OF PRODUCER PRICES FOR MILK**

## **1999 MILK PRICES**

*revised version*

December 2000

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## 0. Preface revised version

Compared with the presentation of 1999 milk prices in November 2000 some corrections have been made in this version, namely:

- Supplementary payments are adjusted according to the date of payment and - if more recent data became available - actualised. The correction for date of payment has resulted in lower supplementary payments.
- Regarding monthly milk price calculations the next revisions have been made:
  - The 2-weekly milk payments are converted to monthly prices in a different and more accurate way. The 2-weekly variable parameters (e.g. fat and protein prices) are converted to monthly prices by a weighting based on the exact number of days. This has resulted in slightly different prices for the Dutch companies.
  - Since sufficiently recent data on Valio milk prices are in 2000 not available, Valio has been replaced in the monthly comparisons and consequently in this annual report by another (smaller) Finnish dairy company the Kymmie group.
  - Input data (quality premiums) for Arla (S) and Danone (F) are corrected which has resulted in lower prices (minus 0.13 and 0.15 euro/100 kg respectively).
- Further some minor corrections are made in the calculation model - consequences for the level of milk prices less than 0,03 euro - and some textual correction are made in this report.

## 1. Introduction

### 1.1 Objective and motivation

For dairy farmers the price received for raw milk is the major source of income.

In addition to developments in the dairy products market and the strategy and method of financing of the dairy company, the behaviour of competitors is to an increasing extent becoming an important factor in determining milk price levels.

Prices paid by the various dairies in the EU apparently are converging, while the collection of raw milk is no longer restricted to the same extent by national borders.

In order to obtain a clear picture of the developments and, thereby, to improve the transparency of the dairy market for farmers, the Dutch farmers union (LTO- Nederland) has launched a project to monitor and systematically compare the prices of raw milk paid by various dairy companies in the EU.

The Dairy Committee of LTO Nederland has commissioned the Dutch Dairy Commodity Board (Productschap Zuivel) to carry out this project.

The project is realised in co-operation with the European Dairy Farmers (EDF).

### 1.2 Method

Milk payments receipts (one per dairy company) are collected by EDF from various members. These receipts constitute the main input for the project. The milk payment systems adopted by each company has been analysed on the basis of these receipts, supplemented by additional information where necessary and incorporated in a calculation model.

This model is able to calculate the monthly milk price using:

1. Monthly data from milk receipts, such as fat and protein prices, bonuses or deductions etc.
2. External data, such as exchange rates etc.

Using these data, the model can calculate the monthly milk prices for different:

- a) fat and protein contents;
- b) somatic cell count and total bacterial count;
- c) the quantity of milk delivered.

The values of these parameters built into the calculation model are so chosen as to be representative of a certain standard of quality and scale of deliveries.

The monthly milk prices are weighted on the basis of the national seasonal pattern of deliveries to get a rolling and/or yearly average price.

It must be emphasised that the result of these calculations is NOT a comparison of the average prices actually paid by the dairies, but the price each company pays for a certain standard quality and quantity of milk based on its own payment system.

### **1.3 Results**

Each month comparable prices for raw milk paid by a number of large dairy companies located in different countries/regions of the EU will be calculated. This monthly publication from December 15<sup>th</sup> onwards will also contain information on milk price developments in other parts of the world (e.g. USA, Australia and New Zealand).

After a year has ended the results for that year will be summarised in an annual report. In this report the results for calendar year 1999 are presented.

## 2. 1999 Milk prices

The milk prices calculated for the calendar year 1999 are shown in the table below.

### Standardised milk price calculations for 1999 deliveries (Euro/100 kg)

(Price per 100 kg standard milk with 4.20 % fat, 3.35 % protein, total bacterial count 50,000/ per ml, somatic cell count 300,000 per ml and a yearly delivery of 350,000 kg, VAT and levies excluded)

Company		1999 Milk price (including supplementary payments)	Supplementary payments
<b>Parmalat (Region: Emilia Romagna)</b>	I	37.26	none
<b>Arla</b>	S	33.00	-0.13
<b>Kymmie</b>	FIN	31.43	0.65
<b>MD Foods</b>	DK	30.81	1.79
<b>Campina Melkunie</b>	NL	30.46	3.92
<b>Friesland Coberco Dairy Foods</b>	NL	30.35	2.07
<b>Danone (Region:Pas de Calais)</b>	F	30.14	none
<b>Bongrain CLE (Region: Basse Normandie)</b>	F	29.96	none
<b>Glanbia</b>	IRL	29.81	0.51
<b>Lactalis (Region: Pays de la Loire)</b>	F	29.55	none
<b>Humana Milchunion eG</b>	D	29.29	0.59
<b>Nordmilch</b>	D	28.70	0.07
<b>Golden Vale (South)</b>	IRL	28.44	none
<b>Belgomilk</b>	B	28.17	0.00
<b>Express Dairies</b>	UK	26.73	none
<b>Milk Marque</b>	UK	24.59	0.09
<b>AVERAGE MILK PRICE 1)</b>		29.92	
<b>Other milk prices</b>			
<b>USA 2)</b>		28.66	
<b>Australia 3)</b>		17.05	
<b>New Zealand 3)</b>		15.52	

#### Remarks:

1. Arithmetic mean
2. Own calculation based on USDA monthly publications of Class III prices adjusted for 4.20 % fat, 3.35 % (crude) protein and somatic cell count of 300,000.
3. Average milk prices paid to producers as published in IDF - Bulletin 355 World dairy Situation 2000, source ZMP, national statistics. Because of incompatibility of data and sources a comparison of Australian and New Zealand with the other prices should be treated with caution.

However some revisions have been made (see Preface) and consequently the level of some milk prices have been adjusted, the ranking of the companies has not been changed.

### 3. General assumptions

#### 3.1. Chosen standards for fat and protein contents, quality and annual delivery

a) Fat and protein contents

The chosen fat and (crude) protein contents of 4.20 % and 3.35 % (weight percentages) correspond to European averages.

b) Quality

Since the bulk of milk is able to meet the criteria for a total bacterial count of 50,000 per ml and for somatic cell count of 300,000 the bonuses or deductions applying to milk of this quality have been included when calculating the comparable milk prices.

c) Annual delivery

A total annual delivery of 350,000 kg is chosen.

#### 3.2 Milk price calendar year 1999

The milk prices for 1999 are the weighted averages of the monthly milk prices calculated for January 1999 to December 1999. The prices have been weighted by the national seasonal pattern of deliveries. The milk price shown for calendar year 1999 includes supplementary payments for end-of-the year profit distributions.

#### 3.3 Supplementary payments for end of the year profits

For a number of dairies, mainly coops, the monthly milk price is not the final price paid, but an advance payment. In these cases the final or definitive milk price can be defined as the advance payment plus the supplementary payments depending on the distribution of the end of the year profits of the dairy company. To obtain a balanced comparison these are included in the milk prices in so far as they are clearly linked to the quantity of milk delivered and actually distributed to the members. This means that e.g. dividend on shares not linked to the milk delivered and/or additions to the general reserves are excluded from the supplementary payments.

Supplementary payments are adjusted if the remuneration for the capital invested in the company by the member suppliers is below market rate (lower than the interest paid on 10 year government bonds)<sup>1</sup>.

Adjustment of supplementary payments according to the date of payment has been made<sup>2</sup>.

#### 3.4 Milk prices USA, Australia and New Zealand

The milk prices in these countries have been given as representative of a sort of bench mark market.

##### USA

The milk price given for the USA is based on the USDA announcement of monthly Class III and component prices and are adjusted to take account of the standards adopted for fat, protein and somatic cell count.

##### Australia and New Zealand

For this annual overview Australian and New Zealand milk prices are quoted from another source. The target is to add actual milk prices from these countries to the monthly milk price comparison.

#### 3.5 Assumptions made for monthly milk price calculations

Where dairies use a different milk payment period (e.g. two- weekly) data have been converted to monthly figures.

Prices have been converted to Euros by using the fixed rates (Euro zone) or the monthly average of the daily exchange

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<sup>1</sup> In that case the supplementary payment has been adjusted for an interest loss based on the long term (10- year) government bond yields.

<sup>2</sup> Payment has been adjusted by an interest loss based on the number of days between the date of payment and the date in the middle of the delivering period and a 3- month interest rate (yearly average).

rates.

Volume is converted to weight by using the following conversion rates: 1 litre equals 1.03 kg, 1 gallon equals 4.5461 litre and 1 cwt (USA) equals 45.36 kg.

Prices are farm gate prices.

If collection costs are deducted or a bonus is paid if fewer collections are made, the comparable milk price is based on collection every other day.

Payment dates have yet not been taken into account in the monthly milk price calculations (contrary to the supplementary payments which have been adjusted for date of payment).

Prices are exclusive of Value Added Tax (VAT) and before deductions of any levies.

## 4. Dairies and milk payment systems, specific assumptions

The dairies were selected on the basis of size and location in various countries in the EU. Some dairies adopt different payment systems for different regions. In such cases the region to which the milk price used in the comparison applies is specified.

### 4.1 Parmalat

Milk prices are based on the contracts between Parmalat and dairy farmers in the province of Parma (region: Emilia Romagna) - represented by AIPLE<sup>3</sup> - for 1998/99 and 1999/00 (1 April to 31 March 31).

### 4.2 Arla

No supplementary payments are made.

Members' invested capital has been assumed to be SEK 80,000 or SEK 22.86/100 kg for an annual delivery of 350,000 kg (based on SEK 10,000 plus SEK 0.20 per kg). The calculated correction is  $4.98^4\% \times 22.3$  i.e. minus SEK 1.14 /100 kg.

### 4.3 Kymmie group

Kymmie milk prices for 1999 are exclusive of subsidy and based on a supplementary payment of FIM 4 /100 litres.

### 4.4 MD Foods

All two-weekly seasonal bonuses and deductions are paid/received as a lump sum after the end of the financial year (which runs from October to September). For a supplier delivering according to the (national) seasonal pattern the sum of bonuses and deduction is approximately nil.

The end of the year profit distribution has been calculated at DKK 11.65/100 kg for 1998/99 (October 1998 to September 1999) and DKK 16.70/100 kg for 1999/00.

Since capital investment is voluntary no correction is made to take account of this.

### 4.5 Friesland Coberco Dairy Foods and Campina Melkunie

Part of the calculated milk price for Campina Melkunie is a quantity bonus of Euro 0,45/100 kg.

For Friesland Coberco Dairy Foods (FCDF), the figures given for the supplementary payments in respect of end-of-the year profits exclude the dividend paid on B- shares (which is not linked to the milk delivered), but include the dividend paid on A- shares. Because FCDF financing is based on the B- shares and member- holders receive dividend the supplementary payments have not been corrected to take account of capital invested.

For Campina Melkunie (CM) the supplementary payments shown have - besides a correction for date of payment - been corrected to take account of capital invested through the member participating units (average NLG 9.33 /100 kg  $\times$  4.66%<sup>5</sup> = minus NLG 0.43). The distribution of subordinated bonds to the members (NLG 1.25/100 kg) has been included, since the remuneration in respect of these bonds is in line with market rates.

### 4.6 Lactalis, Bongrain CLE and Danone

In France the payment systems based on contents and quality differ from region to region (interprofessional regional agreements). For this reason the name of the region concerned has been added to the name of the company.

It has to be noted, that in the milk price of Lactalis a quality deduction of Euro 1,18 has been included. For milk with a total bacterial count of (exactly) 50,000 and more and a somatic cell count of 250,000 in the Lactalis quality scheme a strong deduction is made.

The quality premiums for butyric acid (<1.000) and lipolyse (<0,89 meq) have been included in the milk price as has the premium for milk control (milk from about 60% of the cows in France is controlled).

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<sup>3</sup> AIPLE= Associazione Interprovinciale Produttore Latte di provincia Parma.

<sup>4</sup> Government bond yields, 10 year, Sweden, 1999 average.

<sup>5</sup> Government bond yields, 10 year, Euro area, 1999 average

The (private) French companies do not distribute end-of-the year profits or other supplementary payments.

#### 4.7 Glanbia and Golden Vale

The prices of Glanbia and Golden Vale are based on manufacturing milk.

The figures for the 4:4:5 weekly payment periods (ending the last Saturday of each month) used by Glanbia have been converted to monthly milk prices by taking the most closest corresponding month. It has been assumed that the milk meets the lactose criteria.

The Irish dairies apply very high winter milk bonuses, but these high prices are weighted by low deliveries during these months.

As agreed at the time of the Avonmore/Waterford merger to form Glanbia, up to December 2000 Glanbia will pay supplementary payments based on the difference between the Glanbia price and the average Irish milk price. For 1999 this payment amounted to 1.92 pence per gallon (VAT excluded).

#### 4.8 Nordmilch and Humana Milch Union eG

Both German companies made additional retrospective payments in the course of 1999. These additional payments have been taken into account as supplementary payments. Taken into account the (national) seasonal pattern these payments have been calculated at respectively DEM 0.51 (Nordmilch) and DEM 1.54 (Humana Milch union eG) for 1999. In addition to the date of payment a correction is made for invested capital based on member participating units. This correction is for both companies 4.66%<sup>6</sup> of DEM 8.00 /100 kg is minus DEM 0.37 /100 kg.

#### 4.9 Belgomilk

Although the qualifying criteria for the so-called AA- premium of BEF 0.30 /litre comply with the standards of 50,000 and 300,000 adopted in the calculations for the total bacterial count and somatic cell count respectively, the AA-premium has not been included in the calculated milk price, because other qualifying criteria for this premium (e.g. animal health) mean that only about 30% of the milk qualifies.

One of the characteristics of the Belgomilk payment system are the relatively high volume bonuses from a yearly delivery of 170,000 litres and more. In the milk price a quantity bonus of Euro 0.99 is included, which corresponds with an annual delivery of 350,000 kg. The average delivery per supplier for Belgomilk is about 160,000 kg/year.

Because of the dioxin crisis, a (post dated) correction of minus BEF 2.50/litre has been applied to the milk price for May 1999.

As Belgomilk made no profits in 1999, no supplementary payments were made. Capital investment by members is on a voluntary basis and the remuneration is in line with market rates. Consequently no correction has been made to take account of this.

#### 4.10 Express Dairies and Milk Marque

The UK dairies have strong, but also different quality incentives. For milk with a total bacterial count of 50,000 and a somatic cell count of 300,000 Express Dairies pay a bonus of Euro 0.61, but the Milk Marque price for this quality is deducted with minus Euro 0.31.

Only Milk Marque distributes end-of-the year profits to member suppliers. Profit distribution for the 1998/99 financial year (1 April 1998 to 31 March 1999) was 0.29 pence per litre. There was no profit distribution for 1999/00, because all profits were reserved for the new company Axis<sup>7</sup>. The supplementary payment for 1999 is  $0.2475^8 \times 0.29 + 0.7525 \times 0 = 0.07$  pence per litre.

Because members receive remuneration in line with market rates in respect of invested capital no correction has been made to take account of capital investments by members.

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<sup>6</sup> See 5

<sup>7</sup> April 1<sup>st</sup> 2000 Milk Marque split into 3 regional co-operatives, i.e. Zenith (North), Axis (Mid) and Milk Link (South).

<sup>8</sup> According to national seasonal pattern milk deliveries in the first 3 months accounts for 24.75 % of the total.