The Competitiveness of South African primary producers, a report based on the 2011 IFCN Dairy Report

By Koos Coetzee

MPO Economist
Introduction

The International Farm Comparison Network is a network of dairy experts in many countries. The IFCN mission is to create a better understanding of milk production worldwide. Scientists from 90 countries cooperated in the work of IFCN in 2010. It analysed the production and cost of 157 typical dairy farms in 60 countries and published the results in the 2011 Report.

The IFCN is managed by a group of dedicated dairy scientists at the IFCN Dairy Research Centre in Kiel in Western Germany. Dr Koos Coetzee has been involved in the work of IFCN since 1998. From 2008 South Africa is a full member of the IFCN. South Africa’s participation in the IFCN work is partially sponsored by Milk SA.

The 2011 IFCN Dairy Report was recently published. In a 206 page book, the results of the farm comparisons, global dairy economic indicators and country reports on 90 dairy producing countries are provided. This article reports on some of the information provided in the Report.

Global structure of dairy farming

An estimated 1 billion people live on 145 million dairy farms. The largest numbers of dairy farms are found in India (78 million), Pakistan (7,4 million) and Russia (3,2 million). China, Ukraine Uzbekistan, Kenya and Uganda have between 1,7 million and 2,2 million dairy farms. The number of dairy farms decreased by 0,5% or more per year in most countries. The average dairy herd is 3 cows. In over 40% of countries the average herd size is below 10.

There are only eleven countries with dairy herds larger than 100 cows, namely: Saudi Arabia, New Zealand, Australia, South Africa , the Check Republic, Argentina, USA, Denmark, Israel, United Kingdom, and Cyprus. The average farm size in the larger EU (EU-27) was 12,3 cows per farm, ranging from 45 cows per farm in the EU-15 to 3,8 cows per farm in the new EU countries (Figure 1) The distribution of farms and number of cows per size group is shown in Figure 2. Seventy-eight percent of dairy farms milk 10 cows or less and own half the total dairy herd. South Africa is also one of the few countries where total milk production per farm grows at more than 7,5%. While total milk production did increase, the decrease in the number of dairy farms also contributed to this.

Cost of milk production worldwide

The IFCN uses results for typical dairy farms in various countries to determine production cost. Cost figures compiled by the dairy experts in various countries
are checked and validated by the dairy scientists at the IFCN centre in Kiel. After further validation with the dairy experts the information is finally checked and corrected at a three day preconference in Kiel. The typical farm approach ensures that average figures that are frequently skewed as the result of outliers in the data are not used. Most countries use two to three typical dairy farms to represent dairy farms in a country. In South Africa the three farm types are a typical large pasture-based farm with 422 cows, a large TMR herd with 630 cows and a mid-sized dairy farm with 210 cows. In all 157 dairy farm types were analysed.

Total cost of milk production varied between 35c/litre for a five cow dairy farm in Cameroon to R6,45/litre for a 64 Cow Swiss dairy farm. In general dairy farms can be divided into high cost and low cost farms. The high cost farms are in Europe, the Middle East and North America. Western Europe has the highest cost (R3,85+/litre), followed by the Middle East (R3,45/litre) and North America (R3,20+/litre). Production cost in low-cost farms averaged around R2,40/litre for 2010. The average cost and cost range in various areas are shown in Figure 3. South Africa lost its position in the lowest cost sector, mainly as a result of relatively high feed prices, compared to other countries. Figure 4 provides an overview of production cost in various countries.

**Dairy farm returns**

Total dairy farm returns consist of milk income, other income and various direct and indirect subsidies. Some subsidies are based on milk production or herd size (coupled), others are so-called decoupled payments that are based on a whole range of, sometimes very esoteric standards.

Farm-specific milk prices ranged from R1,17 per litre in Uganda to R5,10 in Norway and Canada while the national average milk price varies between R1,40 and R 5,60. Countries can be divided into categories, based on milk prices received by farmers (Table 1).

**Table 1: Countries grouped according to farm specific milk prices, 2010**

<table>
<thead>
<tr>
<th>Category</th>
<th>Below R2,60</th>
<th>R2,60 – R 3,30</th>
<th>&gt; R 3,30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Poland, Belarus,</td>
<td>Western Europe and</td>
<td>Norway, Switzerland,</td>
</tr>
<tr>
<td></td>
<td>Belarus,</td>
<td>North Africa, South</td>
<td>Finland, Canada,</td>
</tr>
<tr>
<td></td>
<td>Ukraine, Armenia,</td>
<td>Africa, USA, South</td>
<td>Russia, Israel,</td>
</tr>
<tr>
<td></td>
<td>Uganda, Uruguay</td>
<td>Africa, USA, New</td>
<td>Jordan, EU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zealand, Australia,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brazil</td>
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</tr>
</tbody>
</table>

Source:IFCN, 2011

In most countries milk prices followed the trends in global dairy product prices. South Africa is an exception to this rule. Whereas producer prices in most
countries increased from 2010 to 2011, the same did not happen in South Africa (Figure 5).

In Many countries subsidies contributes significantly to total returns. Direct payments include all the direct transfers from government to farmers and include acreage payments, payments per kg of milk, payments per cow, fuel subsidies, social payments and special projects. Investment aid, such as the financing of manure handling facilities and interest subsidies are difficult to quantify and are not included in total subsidy figures by IFCN. In the EU decoupled payments are based on total farm size and are difficult to quantify on an enterprise level.

Total coupled and decoupled payments varies between R 3,28 in Norway, R 2,83 in Switzerland and between 36 cent and 72 cent per litre in other EU countries. In addition to these subsidies, governments support farmers with investment aid and subsidised interest rates for the development of infrastructure.

**International benchmarking**

Cost and returns for dairy enterprises were already discussed in previous sections. Benchmarking consists of a detailed analysis of milk yield, cost components, feed efficiency and other factors that directly impact on the profitability of dairy farms. South African pasture-based farms obtain milk yields comparable to those obtained in other pasture-based countries. In 2010 producer prices were slightly higher than in these countries – total returns were thus higher. However total cost and especially cost of feed and feeding were much higher, resulting in much lower profits. The higher feed cost was caused by feed prices and not by feed efficiency. In spite of lower pasture quality, South African pasture based herds manage a high feed efficiency compared to farmers in other countries.

Our above average TMR herds compare well to similar herds in the USA, Israel and other countries. Milk yield and feed efficiency is comparable. Higher feed prices however result in higher total cost and lower profitability.

While South African milk producers did move to higher production cost levels than in 2009, this was caused by higher feed prices and not lower efficiency. In fact there was a slight improvement in average feed efficiency, both in pasture and TMR herds. The South African milk producer has learned to manage without government intervention. As budget restrictions force Northern Hemisphere countries to lower subsidies, global prices will become firmer. Non-subsidised milk producers in the Southern Hemisphere will be able to survive.
Figure 1: Average farm size, 2010

Source: IFCN, 2011
Figure 2: Percentage distribution of dairy farms and cow numbers per size class, 2010

Source: IFCN, 2011

Figure 3: Average. Maximum and minimum milk production cost in various regions, 2010
Source: IFCN, 2011
Figure 4: Milk production cost, various countries, 2010

Source: IFCN, 2011

Figure 5: IFCN price indicator and SA producer price, 2006 - 2011

Source: IFCN, 2011