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Milk Prices in 2013/14.

How did FMA and BSC compare in terms of milk price in the four regions in which they collected milk in 2013/14?

1. Introduction.

In August 2014, FMA/BSC commissioned Ian Gibb of Farmanco Pty Ltd to undertake a study of milk prices across the four regions in which they collected milk in southern Australia. The four regions were defined as north (Northern Irrigation Area), east (Gippsland, including the Macalister Irrigation Area), south (Tasmania) and west (Western District). Two milk supply patterns were selected for each of the regions; one pattern representative of a seasonal calving herd in each region and the other, a typical flat supply pattern produced by a herd with multiple calvings. Each of these production patterns was then scaled to 80,000 kg of milk solids, 160,000 kg of milk solids and 320,000 kg of milk solids to represent a small farm (around 150 cows), a medium sized farm (around 300 cows) and a large farm (around 600 cows). The end result was that for each of the four regions, milk prices were calculated for six supply patterns; small, medium and large for both seasonal and flat supply patterns, making a total of twenty four farms.

FMA and/or BSC prices were then compared with the major dairy companies competing for milk in each region. The list of competitors for each region included:

- North
    - BSC (Bonlac Supply Company)
    - FMA (Fonterra Milk Australia)
    - MG (Murray Goulburn)
    - TMI (Tatura Milk Industries)

- East
    - BSC (Bonlac Supply Company)
    - LFP (Longwarry Food Park)
    - MG (Murray Goulburn)
    - Burra (Burra Foods)
- West
    - BSC (Bonlac Supply Company)
    - FMA (Fonterra Milk Australia)
    - MG (Murray Goulburn)
    - WCB (Warrnambool Cheese and Butter)
- South
    - BSC (Bonlac Supply Company)
    - TDP (Tasmanian Dairy Products)

An additional complicating factor was that in 2013/14, most of these companies had multiple payment options available to their suppliers and in the case of FMA and BSC, also had different pricing in different regions. A total of seventeen payment options were identified (BSC 4, FMA 2, TMI 2, MG 2, LFP 1, Burra 2, WCB 2, TDP 2). Where multiple pricing options were available, the option that produced the highest price for a particular supply pattern was chosen. Other assumptions were also required to make these calculations; for instance, that all milk supplied met the top quality payment standard, that in each case the lowest volume charge applied and that the number of tanker stops was the same in all cases.

All known step-ups, price increases, incentives, charges and deductions were applied. Prices were also expressed net of compulsory levies. In the case of Murray Goulburn price calculations, the value of shares (usually deducted at 0.65 cents per litre) were included in the final price, but not dividends paid on shares.

2. Selection of Farm Production Data.

Real farm data was used to select seasonal and flat production profiles for each region. This was done to reflect normal differences between regions in the start of calving in seasonal herds, which we know varies between regions, and also to reflect the varied impact of seasonal conditions between regions. In each case actual farm data was scaled to represent a small, a medium and a large farm.

There are some unique characteristics of all of the selected production profiles which will have an impact on relative milk price both within and between regions. For example:

- The seasonal farms in each region tend to have:
    - Moderately tight seasonal calving patterns (generally August but with some variation between regions).
    - Usually one month with no milk.
    - Lower protein:fat ratios and above average fat and protein tests than the flat farms (this is consistent with crossbred or Jersey herds).

- The flat farms on the other hand have:

- At least two calving periods (mainly August and March).
- Evidence of a summer production slump in the east, south and west, despite the split calving.
- A high to low ratio (milk supplied per month) of about 2:1.
- Generally higher protein:fat ratios than the seasonal farms.
- Average to below average protein and fat tests.

3. Results.

The tables below show relative milk prices by region for each of the seasonal and flat supply patterns within each region, at three different farm scales.

3.1 North.

North (Size kg MS)	Seasonal BSC	FMA	MG	TMI
80000	$6.42	$6.40	$6.35	$6.48
160000	$6.51	$6.49	$6.43	$6.57
320000	$6.63	$6.62	$6.49	$6.68

North (Size kg MS)	Flat BSC	FMA	MG	TMI
80000	$7.04	$7.02	$6.86	$6.71
160000	$7.09	$7.07	$6.93	$6.81
320000	$7.23	$7.20	$7.01	$6.93

3.2 East.

East (Size kg MS)	Seasonal BSC	Burra	LFP	MG
80000	$6.36	$6.51	$6.29	$6.27
160000	$6.44	$6.55	$6.38	$6.34
320000	$6.59	$6.66	$6.50	$6.41

East (Size kg MS)	Flat BSC	Burra	LFP	MG
80000	$6.90	$6.66	$6.49	$6.73
160000	$6.95	$6.71	$6.58	$6.81
320000	$7.09	$6.84	$6.72	$6.88

3.3 South.

South (Size kg MS)	Seasonal BSC	TDP
80000	$6.35	$6.25
160000	$6.45	$6.32
320000	$6.57	$6.38

South (Size kg MS)	Flat BSC	TDP
80000	$7.00	$7.00
160000	$7.05	$7.07
320000	$7.19	$7.14

3.4 West.

West (Size kg MS)	Seasonal BSC	FMA	MG	WCB
80000	$6.64	$6.69	$6.48	$6.86
160000	$6.74	$6.79	$6.56	$6.94
320000	$6.86	$6.91	$6.62	$7.05

West (Size kg MS)	Flat BSC	FMA	MG	WCB
80000	$7.04	$7.03	$6.77	$6.98
160000	$7.09	$7.08	$6.84	$7.06
320000	$7.23	$7.21	$6.92	$7.17

4. Outcome for FMA/BSC.

What is clear from this comparative data is that FMA and BSC milk pricing systems produced very similar milk price outcomes in 2013/14. Where FMA and BSC collected milk in the same region (north and west), calculated prices for the same 'farm' supply profile were invariably very close.

In terms of the competitiveness of FMA/BSC in each region, FMA/BSC could reasonably claim to have been price leaders in most regions, for most supply patterns, with the exception of seasonal farms in the north, east and west where TMI, Burra and WCB respectively came out marginally ahead.

5. Interpretation of Results (At Farmer Level).

This set of milk price data needs to be interpreted carefully if it is to be used to discuss milk price with individual farmers. While we believe the figures quoted are accurate within the limitations imposed by the underlying assumptions inherit in a study of this type, these results are quite specific to the 'farm' for which the calculations were made in each case. This means that prices are not strictly comparable between regions as the values in these tables are based on different production profiles for each region.

Farmers do not always understand that milk price (expressed in dollars per kilogram milk solids) is determined primarily by production pattern and milk composition (mainly protein to fat ratio), or that seemingly small variations in either, or in milk quality, can mean that there is no easy way to compare their own price with what their neighbour received.

By selecting a seasonal and a flat supply pattern for each region in this study an indication of the potential impact of supply pattern and composition has been obtained. If fact though, at farm level, supply pattern and composition are not independent variables; supply pattern is mainly determined by calving pattern, which in turn is strongly influenced by breed. Farms with a seasonal supply pattern are therefore much more likely to run Jersey or crossbred herds, have a lower protein to fat ratio and receive a relatively low milk price as the result of both factors. Conversely, Holstein/Friesian herds often have flat supply curves as the result of difficulty maintaining seasonal calving and also tend to have high protein to fat ratios. This combination of factors will cause the flat supply curves to receive a high price. The end result is that the difference calculated between seasonal and flat prices within a region for any particular dairy company is likely to represent close to the full range of prices paid. What the methodology in this study does is to provide a matrix of potential price outcomes. It should be possible for individual farmers to place their own production profile within this matrix by defining their farm scale (total production) and their own supply pattern. The vast majority of farms will have received a milk price in 2013/14 that was within the range between the calculated result for the small seasonal farm and the large flat farm. However, there will be a few farms with either extreme production profiles or unusual and specific characteristics (e.g. a large number of milk quality penalties) that fall outside the price range indicated by this data.

One real danger of this type of comparative data is that it puts the focus on milk price when in fact the real issue from a farm business management perspective should be profit, not price alone. Farmers are aware that milk price is a key driver of profit. The 2013/14 season produced record high prices, mainly as the result of a buoyant export market but also strong competition for milk. DEPI's Dairy Farm Monitor Project report for 2013/14, a study of seventy five farm businesses across Victoria, showed higher milk prices across the board and a marked improvement in operating profit for most monitor farms. However, milk price was not the only factor driving profit, as the DFMP report makes clear. The real driver of profit for any dairy farm business is the margin after operating and finance costs. A farming system that attracts a low milk price but that has low costs can be just as profitable as a system with a higher milk price and higher costs.

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