IMPACTS OF DEREGULATION & GLOBALISATION ON DAIRY PRODUCERS: LIKELY RESPONSES

Professor Ian J Lean www. dairydocs.com.au Bovine Research Australasia & University of Sydney

CHALLENGES TO FARMS

- Declining returns for product
- Increased regulation
- Increasing costs
- Market instability

Farmer Returns For Milk



Australian Milk Production



Uses of Milk Produced



Seasonality of Milk Produced



Export Market by Product



International Exporters: Dairy

Source: Aust Dairy Corporation



Export Markets

Source: Aust Dairy Corporation



Comparative costs Australia, Argentina, US, UK, NZ in \$US

🗖 Australia 🗖 NZ 💷 Argentina 🗖 US-west 🔲 US-wise 🔳 UK



Comparative costs Australia, Argentina, USA, UK, NZ -\$US



DO THESE DATA SUGGEST INCREASED GLOBAL RURAL PROVERTY?

What about pasture?

Competitive advantage for industries competing for the global market will depend on

- The application of efficient technologies for an industry, that in turn reflects level of education and availability of appropriate technologies
- A competitive business environment that is costs of key inputs
- Climate and benefits conferred through a favourable physical environment (rainfall, sunlight etc).
- Value of internal markets.
- . Costs of labour inputs.

DETERMINANTS OF PROFIT: Pasture

- Efficient growth and use of pasture
- Timing of calving
- Stocking rates

- High production per cow
- Strategic use of supplements
- Excellent fertility
- Cost efficient strategies to achieve these

Physical measures of farm performance. Within rows, values followed by a common letter do not differ (P<0.05)– Moran et al 2000

	Farm profit category					
	Α	В	С	D	Е	
Number of farms	33	35	58	48	55	
Herd size (cows)	141c	160 <i>bc</i>	187 <i>b</i>	251 <i>a</i>	256 <i>a</i>	
Area (eff ha)	96 <i>b</i>	97 <i>b</i>	112b	141 <i>a</i>	116 <i>ab</i>	
Stocking rate (cows/eff ha)	1.78 <i>b</i>	1.84 <i>b</i>	1.85 <i>b</i>	1.93 <i>b</i>	2.32 <i>a</i>	
Milk yield (L/cow/yr)	4409 <i>c</i>	4599 <i>c</i>	5117 <i>b</i>	5348 <i>b</i>	5841 <i>a</i>	
Milk price (c/L)	26.2 <i>b</i>	26.8 <i>ab</i>	27.0 <i>ab</i>	27.6 <i>a</i>	27.6 <i>a</i>	
Concentrate intake (t/cow/yr)	0.87 <i>b</i>	0.90 <i>b</i>	0.97 <i>b</i>	1.19 <i>a</i>	1.38 <i>a</i>	
Milk yield/ha (L/eff ha/yr)	7846 <i>c</i>	8303 <i>b</i>	9424 <i>b</i>	10355	13425	
		С		b	а	
Milk yield/grazed ha (L/eff ha/yr)	4976 <i>c</i>	4882c	6114 <i>b</i>	6275b	8185 <i>a</i>	
Feed efficiency (L/kg DM)	0.97 <i>c</i>	0.98 <i>b</i>	1.07 <i>a</i>	1.04 <i>ab</i>	1.10 <i>a</i>	
Pasture renovation (%/yr)	10.4 <i>b</i>	11.7 <i>b</i>	10.7 <i>b</i>	15.1 <i>ab</i>	18.8 <i>a</i>	
Nitrogen fertiliser (kg/eff ha/yr)	27b	35b	45 <i>ab</i>	50 <i>ab</i>	58 <i>a</i>	
Phosphorus fertiliser (kg/eff	31 <i>b</i>	40 <i>b</i>	37b	45b	57 <i>a</i>	
ha/yr)						

Measures of Economic Performance Moran et al 2000

M/L milk (c/L)	10.8 <i>b</i>	11.8 <i>bc</i>	12.9 <i>ab</i>	13.7 <i>a</i>	14.1 <i>a</i>
MGM/ha (\$/eff ha)	811 <i>e</i>	904 <i>d</i>	1151 <i>c</i>	1352 <i>b</i>	1853 <i>a</i>
EFS/L milk (c/L)	-3.3e	2.4 <i>d</i>	5.3 <i>c</i>	7.8 <i>b</i>	9.2 <i>a</i>
EFS/ha (\$/eff ha)	-245e	175 <i>d</i>	442c	731 <i>b</i>	1197 <i>a</i>
EFS as % income	-	8.4 <i>d</i>	18.5 <i>c</i>	26.2 <i>b</i>	30.9 <i>a</i>
	13.5e				

IMPLICATIONS

- Farms are already markedly larger
- Farmers are still largely reliant on pasture, but are feeding much more grain
- Larger, more efficient farms were profitable (groups D&E)

LIMITS TO PASTURE SYSTEMS

- Increasing costs of water max pasture yield 18 tonne harvested cf maize / crop 40 tonne
- wastage and exercise 20% waste and walking 5 MJ per : Numbers of cattle vs walking
- Lack of effective fibre to balance grain
- Seasonality of production and milk quality

Pasture or Feedlot?

- Lower variable cost of forage cf 5 vs 10 cents per kg
- More capital per cow estimated \$2-4,000 per cow
- Maximum size ~ 1000
- Greater grain cost & lower production per feed unit

- Higher variable costs for forage
- Less capital per cow
- Maximum size units of 5-10,000
- Grain costs lower and more production per feed unit (consistent feeding and lower maintenance)

CONCLUSIONS

- On a global basis costs of labour may become a key determinant of competitive advantage
- The need to become much larger will challenge the limits to production from pasture and will increase feedlot development in Australia