THE UNIVERSITY OF MELBOURNE

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5.3 Beef cattle productivity and profitability

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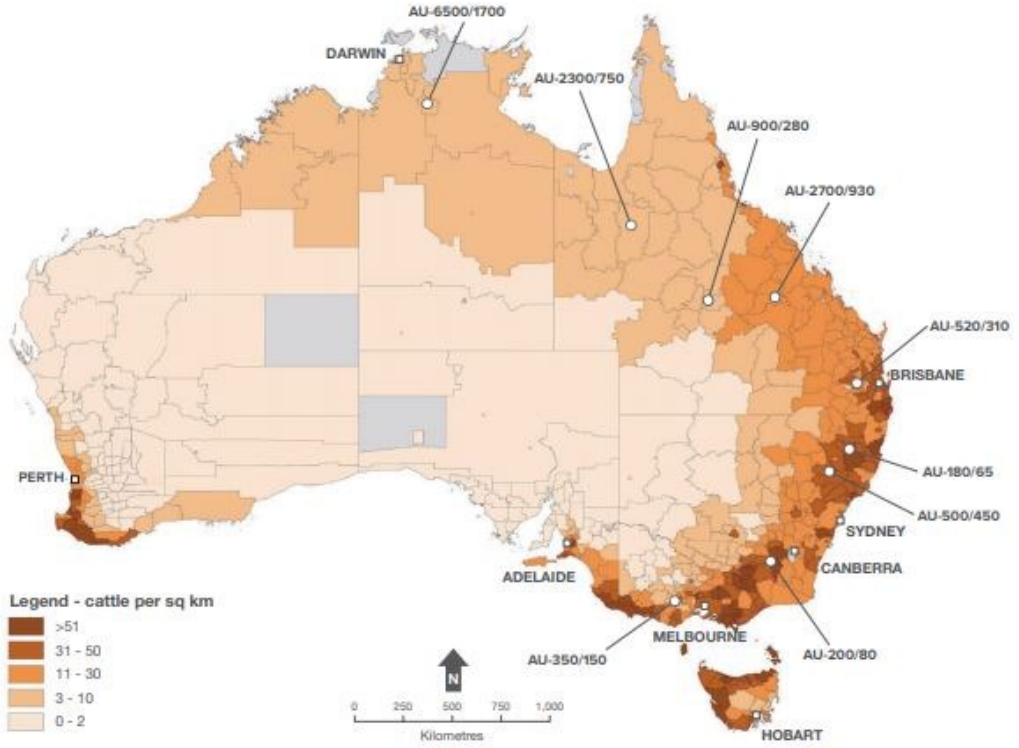
Production and profit across countries

- Use similar benchmark figures
- Representative enterprises
- Australian examples
- About 28 million cattle in Australia – 90% beef and remainder dairy
- If either beef or dairy more profitable potential to move (but infrastructure cost in dairy)

Held/Sold (Cows/Steers)	Farm make-up
AU 180/65	(180 Cows held/65 steers sold) – northern tablelands NSW; Angus + sheep + wool; pasture feed base
AU 200/80	southern tablelands NSW; British breed; pasture feed base
AU 350/150	western districts Vic.; Angus; pasture, hay, oaten grain feed based
AU 900/280	central Qld; Bos Indicus; pasture, mineral supplements feed base
AU 520/310	south east Qld; Simmental X Droughtmaster; cattle + crops; pasture feed base
AU 6500/1700	Northern Territory, Bos indicus; live export; pasture, mineral supplements feed base
AU 500/450	northern slopes NSW; Charolais X Angus; pasture, hay, sorghum feed base
AU 2700/930	central Qld, Bos indicus; cattle + crops; pasture, oats grazing feed base
AU 2300/750	Qld Gulf, Bos indicus; pasture, mineral supplements feed base

Figure 2: Location of Australian typical cattle farms and beef cattle density

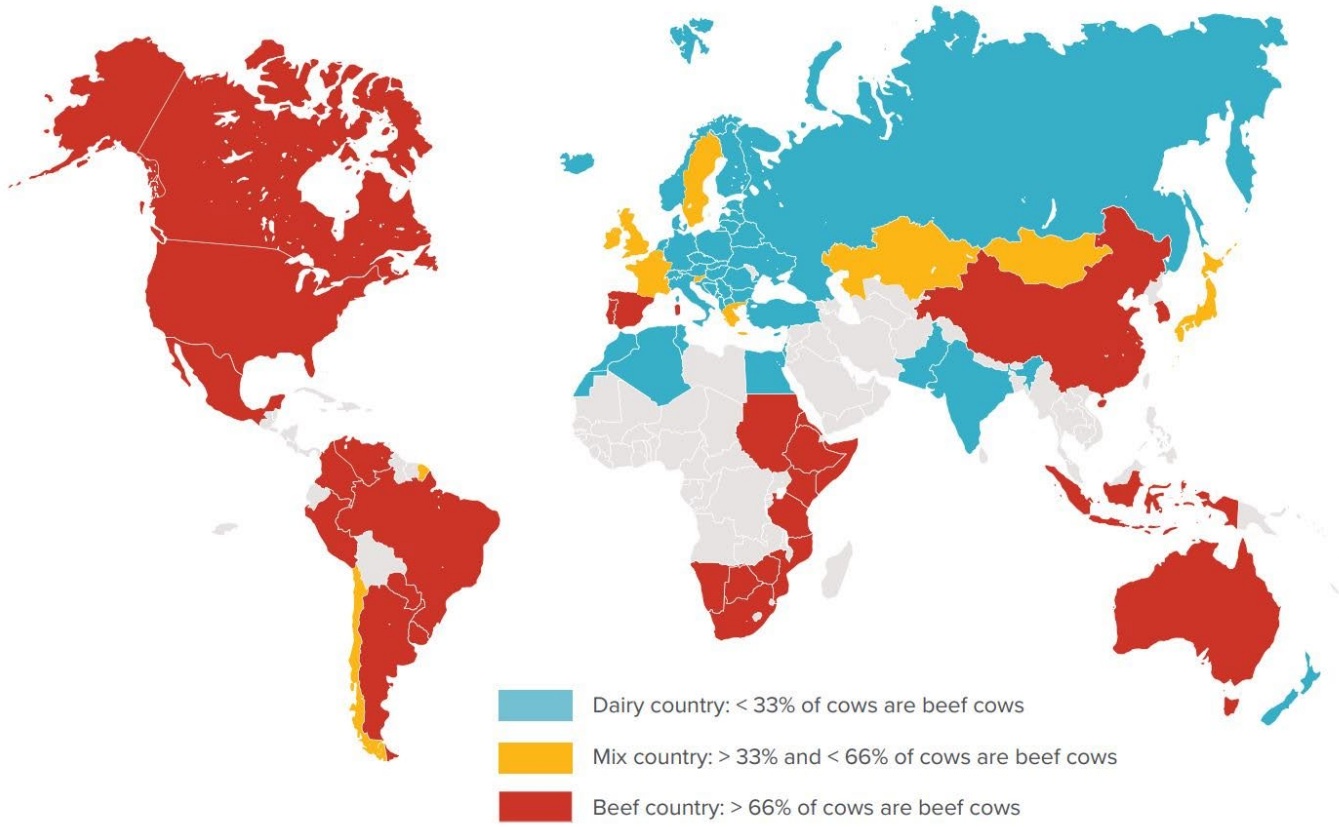


[3] Such individual farm data is further 'typified' where necessary by replacing farm individual particularities by prevailing characteristics, figures, technologies and procedures.

Beef versus dairy

- For countries in blue a move from dairying into beef has a substantial impact on beef numbers e.g. EU
- Still significant numbers of dairy cows in red countries e.g. USA
- Dairy and beef very similar starting genetics but selection changed

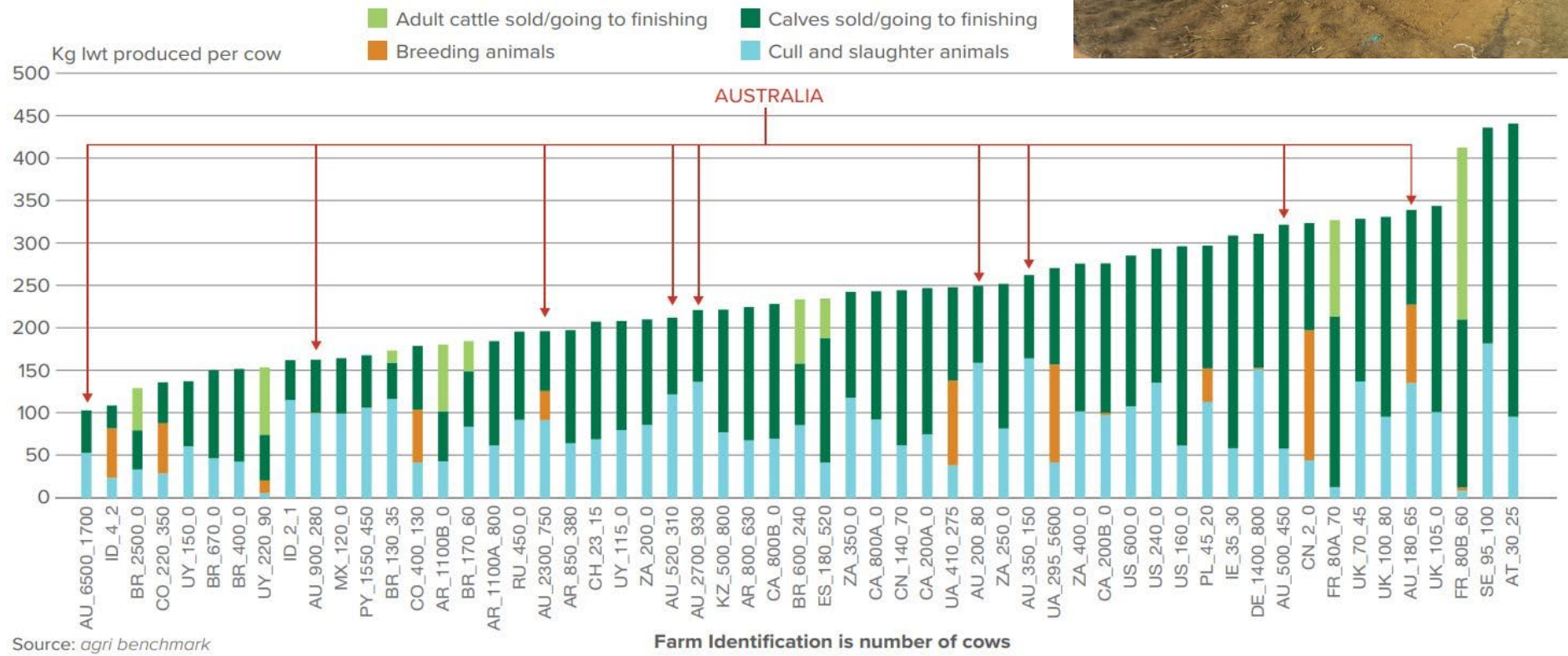
Figure 12: Beef and dairy countries



Comparing international systems

- Herd size – 10s to 1,000s
- Large herd in one country = hobby farm in another

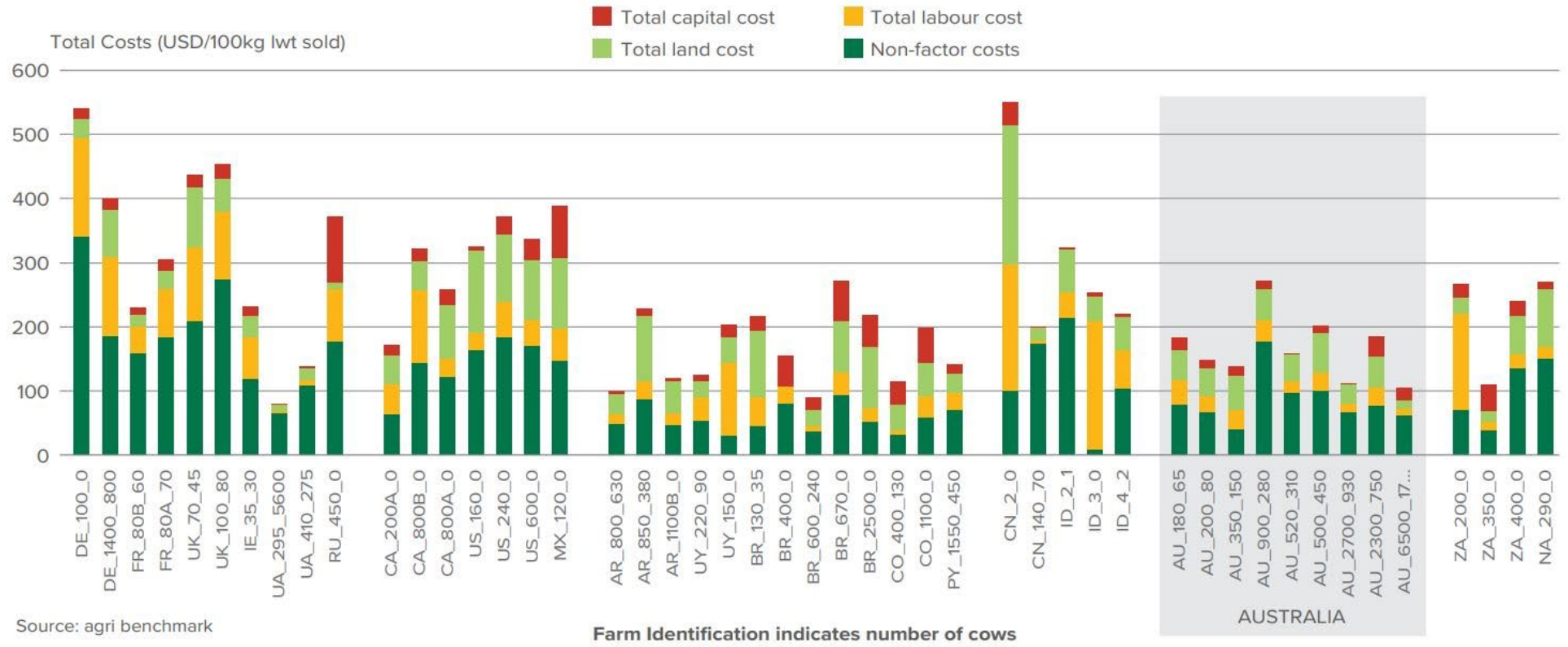
Figure 14: Total kg live weight produced per cow



Cost of production

- Non-factor = replacement purchases, feed, machinery & infrastructure maintenance
- Higher labour $, overall lower $ production
- Low labour unit per DSE
- Primarily grass fed

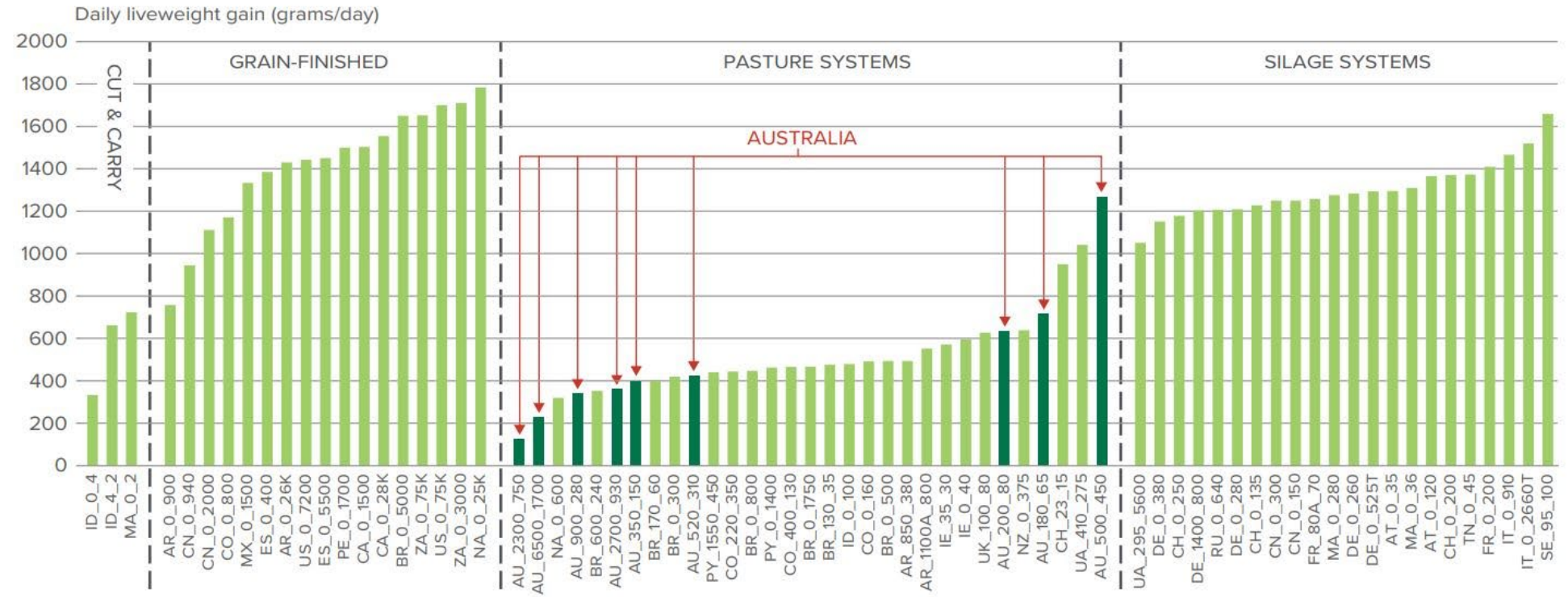
Figure 15: Total cost of cow-calf production (US$ per 100kg live weight sold)



Daily live weight gain (grams/day)

- Large variation in gain, particularly on feed type (energy/protein)

Figure 18: Daily Live weight gain (grams/day)



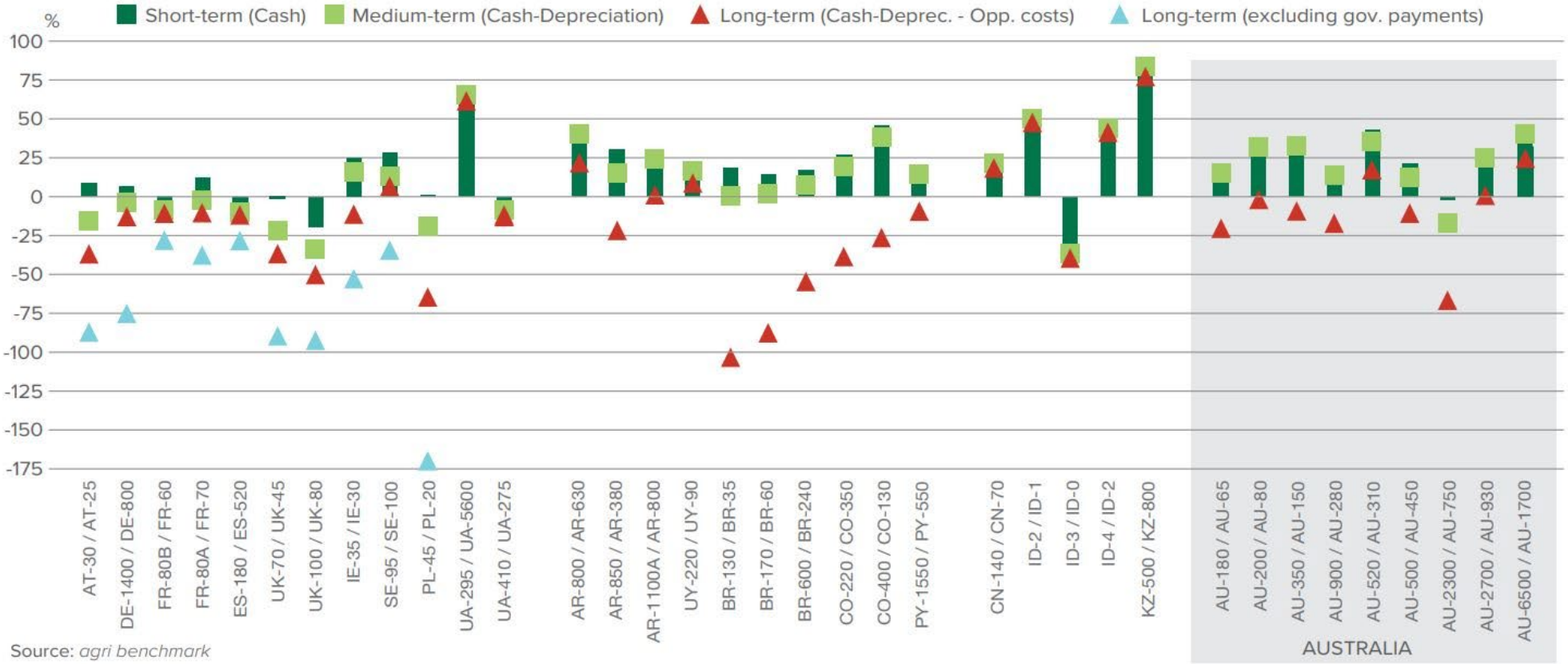
Source: *agri benchmark*

Farm identification indicates Country_No. Cows_No. Finished cattle sold

Profit margins

- Land appreciation not included in these figures

Figure 13: Whole farm profit margins for farms with combined beef cattle breeding and finishing components[5]



Source: *agri benchmark*

Averages and overall performance

- Top 20% of producers tend to do additive small things well
- Note GM/DSE double for the top 20% of producers and more than double for GM/ha (higher SR)

Table 4. Production and financial characteristics of average and high profitability beef enterprises in south west Victoria.

Farm parameter	Average all farms	Top 20%
Stocking rate (DSE/ha)	15.6	20.6
Calving (%)	88%	89%
Average sale weight (kg/hd) liveweight	418	430
Beef production liveweight (kg/ha)	314	548
Average sale price liveweight ($/kg)	$1.84	$2.11
Pasture costs; $/ha ($/DSE)	$62 ($3.97)	$104 ($5.05)
Supplementary feed; $/ha, ($/DSE)	$90 ($5.77)	$100 ($4.85)
Animal health costs; $/ha, ($/DSE)	$18 ($1.15)	$30 ($1.46)
Gross margin ($/DSE)	$20	$40
Gross Margin ($/ha)	$329	$818
Gross Margin ($/ha/100mm rainfall)	$49	$118

Enterprise and whole farm benchmarks

- Must also be long terms sustainable

Table 1: Whole-farm benchmarks

Whole-farm benchmarks	Question answered	Methodology	Guide to performance*
Net profit before tax profit KPI	Will the profits meet your drawing and provisioning requirements?	Earnings before interest, lease payments and tax	> $90,000 = strong[1]
Return on assets managed profit KPI	Is the farm meeting its operational efficiency targets?	Earnings before interest, lease payments and tax ÷ total assets under management	> 4% = strong[2]
Return on equity profit KPI	Is the farm meeting your wealth creation targets?	Earnings before interest ÷ total assets under management	> 4% = strong[3]
Interest cover solvency KPI	Is the farm generating enough profits to meet debt servicing obligations?	Earnings before interest, lease payments and tax ÷ interest and lease payments	3 = strong
Peak debt	Will your finance arrangements cover your working capital requirements?	Lowest working account balance for the year	n/a
Expense ratio risk KPI	Are you generating enough income to meet your ongoing expense needs?	Profit before interest and tax ÷ gross income	> 30% = strong[2]

Table 2: Enterprise benchmarks

Enterprise benchmarks	Question answered	Methodology	Guide to performance*
Productivity efficiency KPI	Is this enterprise as productive as it should be?	Quantity of product produced ÷ grazed hectares	> 35kg beef lw/ha/100mm = strong[3]
Price received efficiency KPI	Are you getting the price for this product that you should?	Gross income for the product ÷ quantity of product produced	n/a
Cost of production efficiency and risk KPI	Is the cost of producing this product more than it should be?	Total expenses ÷ quantity of product produced	< $0.80/kg beef lw = strong[2]
Stocking rate efficiency KPI	Are you running as many sheep and/or cattle as you should be?	Stock numbers as DSEs ÷ grazed hectares	> 2 DSEs/ha/100mm = strong[2]
Gross margin	Is this enterprise as profitable as it should be?	Enterprise gross margin ÷ grazed hectares	$20/ha/100mm = strong[2]