

# Moderating frame size for profit gain

BIGGER IS NOT ALWAYS BETTER WHEN IT COMES TO REPRODUCTIVE AND PRODUCTIVE EFFICIENCY

Back in 2010 US Cattleman Lee Leachman of Colorado on a visit to Australia stated that " Profitability is the most important trait in your herd. Breeders are getting stuck on estimated breeding values (EBVs) when they should be worrying about profit".

In an article published in The Land newspaper Sheena Coffey wrote that he argued that too many cows are too big for commercial beef operations. It is a view shared across the US



where in all breeds there is a concerted effort to reduce frame, add muscle and focus on producing an earlier maturing turn-off animal that can be fattened on grass. He said an intense focus on breeding traits, particularly growth - which had resulted in a 30% increase in the size of mature cows since 1970 may have resulted in quicker turn-off and faster weight gain, but had not in turn had a positive impact on profit levels. Mr Leachman quoted research which showed the average cow size in Angus and Hereford had increased 100kg to 600kgs from 1970 to 1999 "We can roughly extrapolate they've gone up another 100kgs since then".

Research had shown bigger cows wean a lower percentage of their body weight, he added. By focussing on growth and the underlying trait of appetite, producers had pushed feed consumption skywards: "for a 10% cow size increase, we get a 70% increase in consumption".

Gunning for more kilograms on calves via growth traits had also reduced cow fertility and longevity, with more moderate-sized mothers outliving and breeding their larger counterparts.

The key to profitability was, Mr Leachman said, building a moderate-sized cow and crossing her with bigger bull, "that way you can have the best of both worlds".

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## A TALE OF BETTY AND ROSIE

To illustrate a moderate-sized cow has increased profitability, Mr Leachman used the example of 500kg Betty and 636kg Rosie.

Profitability	Betty	Rosie
Weans % of body weight	47%	40%
=	236kg	254kg
At 200c/kg (this article was written in 2010!)	\$470	\$508
Rosie brings in \$38 more		
Feed costs for cow and calf	\$350	\$419
Feed cost difference of \$69		

Cost difference of \$69 less income difference of \$38 gives a profit difference of \$31 in Betty's favour.

Herd size (head)	120	100
% weaned per cow exposed	87%	84%
Wean weight as % of cow weight	87%	84%
Weaning weight at 8 months kg	235kg	255kg
Total weaning weight kg	24,534kg	21,370kg
Total calf revenue \$	\$49,068	\$42,739

Total profit advantage \$6,329

Profit advantage per cow per year \$63.29