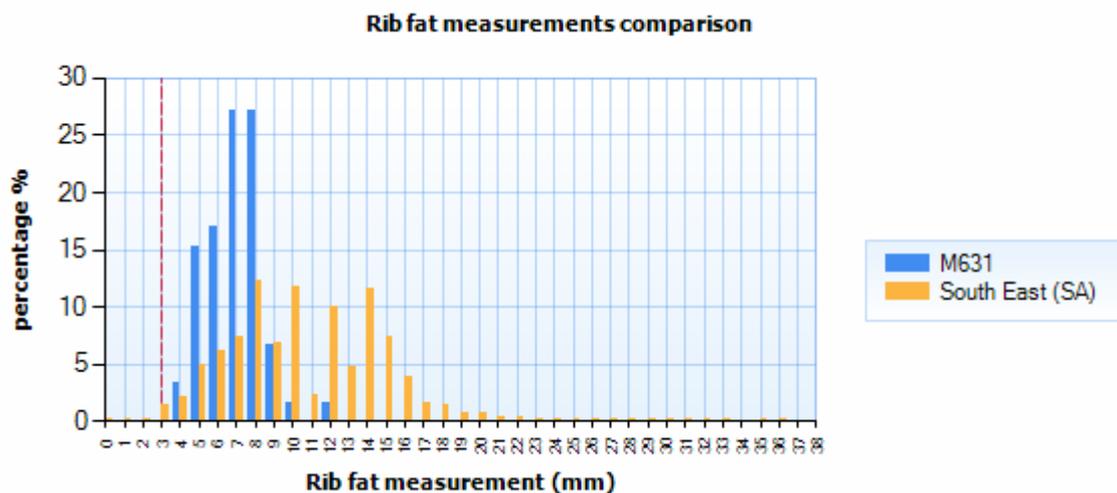


## Measure and Manage Fat to Reduce Costs of Non-Compliance to Beef Market Specifications

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Cattle prices generally are determined by market preferences for particular age, weight and fat categories with severe penalties for non-compliance to preferred specifications. Most beef producers have accepted the benefits of weighing cattle, but mouthing cattle to determine age is not commonly practiced and the use of ultrasound methods to estimate fat in live cattle is largely restricted to stud herds selling cattle for breeding. Producers registered for Meat Standards Australia (MSA) have access to feedback and benchmarking facilities which can indicate where management changes can produce significant improvements in value of stock sold. Economic analysis of data obtained in the Beef Cooperative Research Centre Regional Combinations project (Slack-Smith *et al* 2009) indicated significant differences between breed types as a result of finishing patterns with high growth rate types being discounted for excess weight when finished and earlier finishing types being penalised for being too light at the required fatness. Overall there were approximately 30% outside of market specifications. Feedback on steers slaughtered in 2010, Deland *et al.* (2011) indicated that a premium equivalent to \$0.05 per mm of fat was applied. Results were compared with the price grid obtained from the local export works to indicate compliance with MSA and meat processor specifications. Using a carcass price grid with maximum priced of \$3.75/kg hot standard carcass weight (HSCW) for a 300-340 kg steer with 0-2 permanent incisor teeth the discount of \$0.25/ kg or \$75/ carcass would apply for steers with 4 permanent incisors or \$0.45/kg (\$135) for 6 teeth. Similar discounts apply when carcasses are either too lean (\$0.40/kg) or too fat. Prices of carcasses of more than 340kg HSCW were reduced \$0.60/kg to the US export steer price. Figure 1 illustrates results for carcasses of 59 trial steers (M631) which were benchmarked against data for 26,478 MSA cattle slaughtered in the south east region of South Australia in 2010. Although there were no penalties for carcasses with p8 fat depth between 8-22mm, approximately 30% of regional carcasses had more than 12mm rib fat. Much of the fat in excess of 12mm is trimmed off in the works and represents wasted feed and labour.



**Figure1. Rib fat measurements of trial steers compared with cattle in the South East of South Australia in 2010**

A hand held ultrasound fat measuring device (Ultramac<sup>®</sup>) has been used at Struan Research Centre for monitoring the fat of trial cattle for more than 20 years. Use of such a device to identify cattle meeting company requirements in 2011 enabled 98% compliance with minimum fat specifications and identified the remaining 2% which did not comply.

It is suggested that to avoid the costs of non-compliance to market specifications which includes price penalties and wastage in processing, beef producers weigh, mouth and fat test their cattle prior to sale for slaughter. Decisions can then be made on management or marketing strategy for non compliant animals.

Slack-Smith A., Griffith, G. and Thompson, J. (2009) Australian Agribusiness Review, Vol 17(9), 178

Deland M.P.B., Copping K., Graham J.F. and Pitchford, W.S. (2011). *Proc.Assoc.Advt.Anim.Breed.Genet* **19**, 434.

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