

Lean Meat Yield & the Path to Value Based Payment: What is the Most Profitable Lamb?

Laura Wishart

Marcus Oldham College

Current feedback from processors around lamb carcass traits is relatively basic, especially when compared to the information available for beef producers. Currently, grids industry-wide pay on two separate key carcass traits:

1. Weight
2. Fat Class

Separately, these two traits are limited in determining the yield and profitability of a lamb carcass, but are far more versatile if combined to create a Lean Meat Yield percentage [LMY %]. LMY % is the percentage of a carcass that is muscle (as opposed to bone or fat) and is comparable across different carcass types. If there were an accurate way of determining the LMY % of a carcass, could it replace the use of broad Fat Classes in price grids and allow processors to better communicate what they want? If so, this could be the first big step towards a value based payment system.

My research was focussed on determining whether a certain lamb carcass composition is particularly profitable compared to other carcass types. To determine this, I looked at 13 evenly-spaced weeks across the 2015 calendar year. I was given access to the production data from the JBS Cobram plant and was able to look at the profitability of lambs of a particular weight range for these weeks. I then matched this information with correlating data sets pulled out of Livestock Data Link, MLA's online carcass feedback system.

Within these data sets, there is a predicted LMY % for each carcass. This figure is the result of an algorithm based on the Hot Standard Carcass Weight [HSCW] and Fat Class of the carcass. Using this predicted LMY % and by sorting each of the weeks' kill into weight ranges that matched the production data, I was able to determine an average LMY% for each weight range (for each week and then as an average across the year). By comparing these numbers to the production data, I was able to identify the most profitable lamb type for the processor (based on weight and LMY %) as being 22-24kg, with a LMY % of 57.00.

While these findings are interesting, there is the undeniable need for more research before LMY % is included in price grids and value based payments become reality. For example, my findings are based on using an LMY % that is calculated on the basis of HSCW and Fat Class. Fat Class is determined through GR measurement, as is standard industry practice. GR measurement is only successful in explaining approximately 30% of the variation in fat data – therefore a LMY % calculated using this method has ample room for error. If we had a more accurate explanation of the variation (for example by using a CT scanner or DEXA unit), we could develop a more accurate LMY % prediction and therefore more accurately compare profitability.

Until a method that increases the accuracy of predicting the composition of carcasses begins to be used commercially, LMY % measures are only predictive and, as such, should not be included in determining the payments a producer receives for their lambs. The benefits of developing and implementing such a tool are significant. For example, by developing a more accurate measure of the composition of a carcass and therefore a more accurate measure of LMY %, processors would be better able to identify the most profitable type of lamb for the markets they target. This would allow price grids to become more clearly defined and more consistent across the lamb industry, which would send a much clearer message to producers as to the type of product they ought to be supplying.

To conclude, implementing more accurate measures of carcass composition are key in developing a value based payment system within the lamb industry. The value of doing so will be significant to both processors and producers and LMY % will be key in extracting this value and shaping the direction of the lamb industry.