Trimming

FOOD SAFETY TECHNOLOGY SUMMARY	
Status	Currently Available
Location	Abattoir slaughter floor
Intervention type	Spot contamination removal
Treatment time	Variable
Regulations	Approved
Effectiveness	Done well, can be very effective
Likely Cost	On-going labour cost
Value for money	Good, but labour may be expensive
Plant or process changes	Can be done on any existing slaughter floor where space permits. Requires considerable labour May need some additional work platforms
Environmental impact	Waste trim is produced
OH&S	Trimmers will be working with knifes, and may be working on raised platforms
Advantages	Can be combined with final QA inspection No major capital cost but may need some extra work platforms (eg. rise and fall type)
Disadvantages or Limitations	Unskilled trimmers can remove/waste valuable product Heavy trimming may effect compliance with product specifications e.g. AUS-MEAT standards Can lead to surface meat drying in chillers if all fat removed down to bare meat without protective muscle membrane.

Trimming

Since 1994, AQIS has prescribed zero tolerance for the carcass contaminants ingesta, faeces, milk and urine. Trimming of the affected product is an acceptable corrective action. Trimming can be combined with other technologies to help remove contamination.

Where beef carcasses are subject to inspection and trimming, the mean TVC can be around 3 log less than on carcasses where no trimming is carried out (Prasai *et al.* 1995). These authors also evaluated the combination of carcass washing and trimming, but found that the microbiological status of the carcasses was substantially poorer than when the carcasses were trimmed without washing. This was considered to be a result of cross-contamination during the washing process. Other studies, however, have shown greater reductions using both trimming and washing than using either treatment alone, but no combination resulted in the elimination of pathogens such as *E. coli* O157:H7, *Salmonella* or *Listeria* from the carcasses (Reagan *et al.* 1996). Conversely, others have found no conclusive evidence that trimming and washing improves the microbiological status of carcasses (Gill *et al.* 1996), and it may be that the efficacy of trimming and washing depends very much on the skill of the operator, the extent of visible contamination compared with non-visible contamination, and the temperature, angle and pressure of the wash waters used in each of these studies.

In addition to the personnel required, trimming involves costs to the industry in loss of carcass meat removed during trimming, followed by possible loss of the underlying surface as it may dry during chilling and become aesthetically unacceptable. Excessive trimming can also downgrade the resultant cuts of meat through removal of the surface fat and tissue that may be important factors in complying with commercial specifications. Manual trimming requires personnel, protective clothing and good lighting, and the contaminated material removed must be disposed of properly.

References

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