

New Zealand Society of Animal Production online archive

This paper is from the New Zealand Society for Animal Production online archive. NZSAP holds a regular annual conference in June or July each year for the presentation of technical and applied topics in animal production. NZSAP plays an important role as a forum fostering research in all areas of animal production including production systems, nutrition, meat science, animal welfare, wool science, animal breeding and genetics.

An invitation is extended to all those involved in the field of animal production to apply for membership of the New Zealand Society of Animal Production at our website www.nzsap.org.nz

[View All Proceedings](#)

[Next Conference](#)

[Join NZSAP](#)

The New Zealand Society of Animal Production in publishing the conference proceedings is engaged in disseminating information, not rendering professional advice or services. The views expressed herein do not necessarily represent the views of the New Zealand Society of Animal Production and the New Zealand Society of Animal Production expressly disclaims any form of liability with respect to anything done or omitted to be done in reliance upon the contents of these proceedings.

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](http://creativecommons.org/licenses/by-nc-nd/4.0/).



You are free to:

Share— copy and redistribute the material in any medium or format

Under the following terms:

Attribution — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — You may not use the material for [commercial purposes](#).

NoDerivatives — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

<http://creativecommons.org.nz/licences/licences-explained/>

Is carcass classification useful or necessary?

A.H. KIRTON

AgResearch, Ruakura Agricultural Research Centre, Private Bag 3123, Hamilton.

ABSTRACT

The need for a N.Z. Meat Producers Board (NZMPB) supervised classification system for export carcasses has been widely debated by the farming community and elsewhere while the Producers Board Acts Reform Act (1997) has been discussed through parliament. Supervision of the export carcass classification is one of the remaining NZMPB (recently renamed Meat New Zealand) functions with the classification being undertaken by company graders. As meat companies select the carcasses most suited to provide the meat/cuts for particular meat export orders, they argue that a national carcass classification system is unnecessary. Today most carcasses are sold as cuts rather than as entire carcasses. Carcass exports provided the main reason for the initial development of a national classification system to facilitate trading overseas 'sight unseen'.

However carcass grading/classification also provides a common language of communication which, when associated with a payment system, allows producers to compare prices from different exporters and provides market signals as to the type of carcass most required. Export carcass classification indicates composition and yield of saleable meat. NZMPB supervising graders are seen as giving an independent check on company graders, a feature disliked by some processors but endorsed by most producers. A uniform national system as is current in New Zealand also provides good data on which to base any future production plans. If based on objective measurements, a national classification system could also be run concurrently with any company system with a computer printing out the results of both systems. It is important that producers receive back factual information on the carcasses they are growing with information on how well they fit market requirements. The recent passage of the Producer Board Acts Reform Act (1997) has noted that the compulsory carcass classification for beef is to be reviewed or phased out in one year and sheep classification system is to be reviewed in two years. Unless the Meat Industry Association agrees with their retention, they will be phased out. If this happens, it may place too much power in the hands of the industry player currently having access to most of the market information and farmers will have no way of comparing between processors.

Keywords: classification; grading; carcasses; meat yield; subjective; objective.

INTRODUCTION

During the current debate on N.Z. Meat Producers Board (NZMPB) functions with associated changes to the producer boards' Acts, a topic frequently debated is whether NZMPB should retain its statutory export carcass grading supervisory function. Several meat companies have argued that this is no longer necessary as they now have their own systems which may result in carcass selection in narrower bands within current export classes or even resulting in the selection of carcasses across current class boundaries to meet the requirements of different export orders. For the remainder of this paper except the historical section, the word 'class' will be used in preference to 'grade' which sometimes carries 'quality' implications which were not necessarily supported by the subsequent eating experience. Class only implies a carcass descriptive system which may be supported by objective measurements.

At this time, it is appropriate to reassess the usefulness of the carcass classification process and ask the question as to what is now its purpose, given the current changes to the meat industry, and ask who benefits from the continuation of a classification system? Is this equally important across industry sectors and does this apply for all species? Apart from the role in facilitating carcass trading, classification

also plays a major role in providing a common language of description between producers and processors and is often closely tied to the producer payment system.

HISTORICAL BACKGROUND

It seems that the different NZ meat exporting companies had their own grades and grade standards by the beginning of the 20th century (Barton, 1982). At that time, meat exports almost entirely comprised carcasses. The system led to a multiplicity of grades causing much confusion in the trade and increasing costs through the need to sort carcasses on the dock at the port of arrival. Because of marketing problems caused by the system, Prime Minister Massey forced legislation through Parliament (Meat Export Control Act 1921-22) that created the New Zealand Meat Producers Board. (Barton, 1982). One of the statutory functions of the NZMPB enabled it to '...have full authority to make such arrangements and give such directions as it thinks proper...for the grading, handling, pooling and storage of meat ...' (Hayward, 1972). This Act provided the first opportunity to regularize grading and set grade standards for export carcasses (Barton, 1982).

A major achievement of the NZMPB supervised export carcass classification system, which aimed to produce

uniformity of standards, is that buyers in our main markets had sufficient confidence in the system that they are prepared to purchase carcasses on a weight and grade basis, 'sight unseen'. In this regard Danish bacon and NZ lamb were regarded as the foremost systems in the world in the 1960's and 1970's (Kempster *et al.*, 1982). However, as by 1995/96 season only 6% beef and 27% lamb and mutton (mainly mutton) was exported in carcass form (Anon. 1996), the importance of carcass classification as an export marketing tool is declining, except where buyers of cuts specify carcass classification in their cuts specifications. Countries such as Iran still prefer to purchase lamb carcasses. Buyers are now more likely to specify the weight range and cut composition as factors in their contracts.

Descriptions of the grades in existence over time have been periodically given by several authors (see Barton, 1982). The NZMPB has twice set up Export Grades Investigating Committees and periodically sets up sheep or beef export grading review committees to check out the then current grading/classification standards and recommend improvements where necessary. The NZMPB also from time to time produces sheep and beef grading/class pamphlets which at the time of publication describe the systems in use for sheep/lamb and beef/veal carcass classification. Information on the composition of the carcasses of the various sheep and lamb export grades relating to particular time periods have been given by Clarke & McMeekan (1952), Kemp & Barton (1966) and Kirton *et al.*, (1992). For beef, such information has been produced by Everitt & Evans (1970) and Woods *et al.*, (1986). These reports show that despite the subjective nature of the systems used for carcass classification, mean differences in carcass composition and yield of saleable meat exist between carcasses in the different export classes for the species concerned. Being paid for yield differences between beef carcasses is an important consideration for producers.

TO CLASS OR NOT TO CLASS, THAT IS THE QUESTION?

The aim of providing a common language of description between meat exporting companies and overseas buyers when the meat was largely traded as whole carcasses, is now losing importance as most NZ meat is now traded as cuts. As these have their own specifications, the class of the carcass they came from is in most cases irrelevant unless specified by purchaser or the carcasses are still being traded. Approximately a quarter of lamb meat and 40% of ewe meat was traded in carcass form in the 1995/96 season (Anon. 1996).

Today, the more important function of carcass classification is to give a common language of communication between producers and processors. Unless a common classification system is in place, producers are at a disadvantage when trying to compare prices offered by different processors. If companies had their own classification system, such comparisons would no longer be readily possi-

ble, a matter seen as a problem at the time when a national classification system was introduced. This is against a background where each company holds market information and producers would be disadvantaged if market signals were not fed back to them through the payment system (the company 'schedule') usually associated with the export class based on assessed fat cover and carcass weight and expected export returns. While it is understandable that some export companies would be happy to see a national system of carcass classification discontinued, I believe that until producers can trust the information supplied by export meat companies and build closer relationships with them through an increased use of supply contractual arrangements, the classification system provides the main national information source of meat values to producers. Supporters of the free market principle have argued that the success of this system depends on a freely available flow of information. Under our meat marketing systems, meat producers have the least information on market requirements and market values. For these reasons, a national carcass classification system should be retained until alternative information systems for producers become available.

In no way should the adoption of a national system prevent companies running their own company system within the national system. If a measurement based classification system could be adopted, accepting a dual output system would not require any increased effort by company staff, merely the appropriate programming on the company computer to enable it to produce dual information outputs from the measurement based input information. The company system could remain confidential to the company or between the company and its suppliers.

Although the meat industry is moving away from carcass exports, a knowledge of the class of carcass available for processing is essential for targeting the raw materials needed to meet the future requirements for focussed export orders. Historical data on export carcass classes combined with periodically produced information on the composition of their cuts, shows the changing market trends and can indicate the future directions for any further changes.

The other side of this argument is the requirement for an objective carcass classification system as contrasted with the presently largely subjective eye assessment system. Although measurements are also specified in the classification pamphlets, they are seldom taken by the company graders responsible for carcass classification. A measurement based system could support a national information system without the need for Meat Board supervisors. Irrespective of who oversees the system, meat producers will be greatly disadvantaged if there is not some common carcass classification system applied by all meat companies and associated with carcass payment systems so that producers can compare the relative payments offered by the different meat exporters.

Carcass classification provides an important information base overlying the meat industry which provides a factual basis for decision making. A nationally consistent

scheme either supervised for consistency or based on objective information (or both) would provide the soundest basis for such a system. Where live animals are traded through stockyards or in the paddock, the original producers do not receive this market related information even with the presence of a classification system.

Carcass classification systems used internationally have been reviewed by Kempster *et al.*, (1982), Jones (1995) and Swatland (1995). The emphasis in these systems is to move to objective measurements, with this aim achieved in particular, for pig carcass classification using methods at a cost acceptable to pork processing industries in the northern hemisphere. Classification is used on all meat animals slaughtered through registered operations in the USA and Canada and is widely used in European Community countries (Kempster *et al.*, 1982) with technically advanced systems in use in Denmark. In the UK, around 30% of sheep and lamb and 40% of beef carcasses are classified (MLC 1995 Sheep and 1996 Beef Yearbooks). In these countries classification is considered to facilitate trade and improve information flows. The remaining unclassified UK carcasses are presumably traded on a different basis. It would be a backward move in this regard if NZ was to discontinue its export carcass classification scheme unless replaced by something acceptable to both farmers and overseas meat importers.

STOP PRESS

The December 18, 1997 Meat Board news reported on the outcomes from the recent passage of the Producer Board Acts Reform Act (1997) In relation to carcass classification:-

The compulsory carcass classification systems are to be reviewed (in one year for beef and two years for sheep meat). Unless the Meat Industry Association then agrees with their retention, they will be phased out. Meat produc-

ers may be disadvantaged if the Meat Industry Association votes to terminate the national export carcass grading system. If all market information is held by the processing industry, they may gain commercial advantage by not sharing this with producers.

REFERENCES

- Anon. 1996. New Zealand Meat Producers Board Annual Report 1996. 53pp.
- Barton, R.A. 1982. New Zealand export carcass grades of lamb, mutton and beef: Past, present and probable. *Proceedings of the New Zealand Society of Animal Production* **42**: 107-111.
- Clarke, E.A.; McMeekan, C.P. 1952. New Zealand lamb and mutton Part I. Anatomical characteristics of lamb and mutton carcasses. *New Zealand Journal of Science and Technology* **33A(5)**: 1-15.
- Everitt, G.C.; Evans, S.T. 1970. Classification and grading of beef and veal carcasses. *Proceedings of the New Zealand Society of Animal Production* **30**: 144-160.
- Hayward, D. 1972. Golden Jubilee: The Story of the First Fifty Years of the New Zealand Meat Producers Board 1922-1972 (Ed. Dai Hayward). Universal Printers Ltd, Wellington, 238 pp.
- Jones, S.D.M. 1995. Quality and Grading of Carcasses in Meat Animals. CRC Press, Boca Raton. 234 pp.
- Kemp, J.D.; Barton, R.A. 1966. Composition of lamb carcasses and cuts of the New Zealand export grades. *New Zealand Journal of Agricultural Research* **9**: 590-627.
- Kempster, A.J.; Cuthbertson, A.; Harrington, G. 1982. Carcase evaluation in livestock breeding, production and marketing. Granada, London & New York. 306 pp.
- Kirton, A.H.; Mercer, G.J.K.; Duganzich, D.M. 1992. A comparison between subjective and objective (carcass weight plus GR or the Hennessy Grading Probe) methods of classifying lamb carcasses. *Proceedings of the New Zealand Society of Animal Production* **52**: 41-44.
- MLC Sheep Yearbook. 1995. Meat & Livestock Commission, Milton Keynes, UK. 57 pp.
- MLC Beef Yearbook. 1996. Meat & Livestock Commission, Milton Keynes, UK. 78 pp.
- Swatland, J.H. 1995. On-Line Evaluation of Meat. Technomic Publishing Company, Lancaster, PA, USA. 347 pp.
- Woods, E.G.; Fowke, P.J.; Bass, J.J.; Butler-Hogg, B.W. 1986. New Zealand beef export grading. *Proceedings of the New Zealand Society of Animal Production* **46**: 63-66.