

final report

Project code: B.AWW.0207
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NSW Department of Primary Industries

Date published: March 2013

PUBLISHED BY
Meat & Livestock Australia Limited
Locked Bag 991
NORTH SYDNEY NSW 2059

Cattle welfare initiatives in low body condition score

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Abstract

This report proposes a national visual description and language to describe beef cattle in low body condition. The description criteria are applicable to the National Live Stock Language – Cattle and the Body Condition Score (0-5) system. It is proposed that the developed descriptive criteria be included in the National Live Stock Language – Cattle and to have the same criteria recognised as “industry advisories” to the National Standards and Guidelines – Cattle and to the Australian Standards for Export of Livestock (ASEL). The descriptions and language will allow producers to establish ‘trigger’ points for on-farm management decisions (reproduction, drought intervention) when muscle/fat or body condition changes. Welfare regulators will have a national reference system recognised in the National Live Stock Language – Cattle to describe beef cattle. This will result in a regulatory activity that is more equitable to producer and regulator. The project’s consultative process has achieved widespread industry sector support for the proposals. Adoption of the visual description and language is proposed via ‘train-the-trainer’ national workshops for State/Territory agencies through on-line learning applications, written extension/education publications (Tips and Tools) and incorporation into existing national beef industry group learning programs.

EXECUTIVE SUMMARY

The prime objective of this project has been to deliver a visual assessment tool and language for beef cattle to assist in on-farm nutritional management. This will assist producers and regulators when assessing animals in nutritionally challenging environments. The second objective was to develop supporting extension tools and training programs to be used with Australia's two main beef description languages being the National Live Stock Language – Cattle and the Body Condition Scoring system (1-5).

A comprehensive consultation process has allowed all sectors of the industry to contribute to the recommendations developed as part of this project. There is general support for the recommendations and where individual industry bodies expressed concerns these were recorded. These concerns were all based on "how could the new descriptive system be used against us into the future".

The outcomes from this project provide the Australian beef industry with visual descriptions and languages that can be used to describe cattle falling outside the desired body 'condition' ranges for production purposes. The same approach can be used by all sectors of the industry: production, transport, livestock agents, saleyards and abattoirs to help minimise welfare issues along the supply chain. In a welfare context the visual descriptions and languages are consistent with the language and description used in production and marketing in southern and northern Australia.

Recommended changes to the National Live Stock Language – Cattle are:

- inclusion of a Fat Score 0 (zero), making a 0-6 score for fat
- inclusion of a BCS 0-5 system
- recognition of an equivalence between the muscle/fat score (National Language) and BCS 0-5.

Standardisation of terms describing strength and fatigue are proposed. Ending the use of out dated terms is also recommended. A technical review process has developed the visual description criteria and language and reached a consensus on achieving an equivalence between the muscle/fat score assessment (National Language) and Body Condition Score (BCS 0-5). This is important because it will allow national use of the system.

The national beef industry will benefit by having nationally recognised criteria for the visual description of cattle to aid management decisions (breeding/reproduction, marketing) and to set on-farm visual assessment standards for drought management decisions (management intervention triggers).

The classification of animals into any visual description 'score' is the first step in planning the future management of the animal(s), and is a 'point-in-time' assessment. The philosophy for the adoption of the proposals by industry and for regulators is 'helping producers, not prosecution'. This was endorsed by State Agency regulators and will underpin all national training.

The criteria proposed and the classifications are not intended to be included in the National Standards and Guidelines – Cattle but will sit as "industry advisories" to the standards and guidelines. The live cattle export sector is interested in adopting the language and visual descriptors with LiveCorp requesting specific market visual description tools for live export supply chain use.

Proposed adoption and education techniques include 'train-the-trainer' workshops for State/Territory advisory and regulatory staff; 'Tips and Tools' MLA education series (pamphlet and internet access); "glove box" guides using the 'Fit to Load' format; integration into existing MLA national extension programs and the utilisation of e-learning tools.

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1 Background

In November, 2009 MLA convened a workshop in Adelaide to review the initiatives of State agricultural agencies in the visual description of beef cattle in low body condition. The result of that workshop was a recommendation for MLA to fund a project that would develop a national visual description and language applicable to beef cattle in low body condition.

The workshop participants agreed that the existing NSW Department of Primary Industries initiatives were a suitable starting point to develop a national approach.

In March 2010, the NSW DPI Executive Board endorsed the visual description language concepts developed by a team of livestock officers (Beef and Sheep Products), for use in animal welfare investigations and drought management extension. From March 2010 until July, 2011, NSW DPI conducted staff training for livestock officers (Beef and Sheep Products) and trained RSPCA and NSW Police Rural Crime Detectives, gazetted under the NSW Prevention of Cruelty to Animals (POCTA) Act, with an accredited program.

In July 2011, MLA awarded the project contract to a team from the NSW DPI Beef Products program:

- Steve Exton, Project Leader and Industry Leader, Beef Development, NSW DPI
- Brett Littler, Livestock Officer (Beef Products), NSW DPI
- Jason Siddell, Livestock Officer (Beef Products), NSW DPI, and
- Ian Blackwood, Principal, Industry Beef Consulting

The Adelaide 2009 workshop identified that the national beef industry lacked a consistent set of criteria to describe beef cattle in low body condition and was beset by numerous physical description systems for beef cattle. It was recognised that the National Livestock Language – Cattle was the ‘endorsed’ language but was largely ignored in the northern industry, where Body Condition Score (BCS 1-5) was used in research and extension, particularly for breeder management.

2 Project objectives

The project objectives were:

1. develop national beef visual assessment tools that will assist with the nutritional management of beef cattle for production and animal welfare purposes; and
2. develop and deliver an appropriate industry extension and communication package that ensures the system is understood and used by all sectors of the Australian beef industry.

As a result of a February 2012 meeting between the project team, MLA and the Cattle Council of Australia (CCA), a number of project directions were tabled:

- the system must have national relevance
- using the two languages of Fat Score (1-6) and Body Condition Score (1-5) is acceptable and there must be clear and simple equivalence between the two languages
- the use of the terms weak and strong are accepted
- to keep it relevant to both productivity and welfare, the system should include all levels of fatness/body condition, i.e. ranging from FS6/BCS5 to FS1/BCS1
- to keep it simple, there should only be three of-concern welfare states, ie alert, strong and weak
- there should be no reference to muscle depletion, muscle scores or other languages in the extension/communication material for industry
- the use of a photograph or sketch incorporating clinical and behavioural descriptors is endorsed
- the project team should continue to communicate with the Australian Animal Welfare Committee (AWC) on the similar system they are proposing
- consultation with RSPCA should only take place after the industry has a final version which they have signed off on.

In addition, Meat & Livestock Australia (MLA) requested that the project emphasise management intervention for welfare initiatives “on-farm” rather than highlighting the regulatory use of the welfare description concept.

3 Methodology

The project utilised industry consultation to develop the concept of the national description language and to establish support and industry ownership. The consultation process allowed all sectors of the industry to “buy into” the project. Research consultation was through direct contact with Australian cattle research and extension personnel and through a technical workshop (Brisbane, August 1 and 2, 2012). The development of the proposed ‘Tips and Tools’ publication involved refereeing by many of these personnel and workshop attendees.

Cattle Council of Australia (CCA) and northern industry producer representatives did not support the use of the proposed Producer Focus Group to ‘test’ the industry response to the national descriptors and language. As a result key industry peak council bodies were the main contact point for interaction during the project and included the following bodies:

- Cattle Council of Australia
- Australian Meat Industry Council
- Australian Livestock & Property Agents
- Australian Livestock & Rural Transporters
- National Saleyard Operators Association
- Northern Pastoral Companies Group
- Australian Cattle Veterinarians
- Livecorp
- Commonwealth DAFF
- Australian Animal Welfare Strategy
- Australian Animal Welfare Sub Committee

These industry bodies participated in a Stakeholders Workshop, October 31, 2012 (Sydney) to review the proposed concepts and to provide comment on proposed producer extension material and educational packages. Training packages for face-to-face skills training have been adopted from NSW DPI programs. These are accredited to the National Competencies Standards. Educational packages for group learning/on-line learning have also been developed.

A project Steering Committee, with an independent Chairperson (Charlotte MacIntyre, WA Food and Agriculture) was formed to provide guidance to the project. This group comprised representatives from State Agricultural Agencies (extension and regulatory) and industry producer bodies. The Steering Committee met twice via tele-conference and received Milestone Reports and the draft final report via email. The Chairperson played an active role in keeping the project informed of feedback received from the members. For State Agencies the Committee was a useful means of keeping abreast of the project developments particularly for the regulatory aspects. Producer bodies participated in the project through the CCA Health and Welfare Task Force.

4 Results

4.1 Industry consultation

The project achieved significant industry consultation across the producer body sector and the service industry sector as detailed in Milestone Reports 1 (September 2011), 2 (December 2011) and 3 (May 2012).

The CCA Health and Welfare Task Force have taken an active interest in this project. The Task Force has provided directions for the project and these have been acted upon during the project. It is recognised that the proposed national description and language will not be adopted by MLA unless CCA endorsed the proposed concept detail. Project presentations were made to the CCA Health and Welfare Task Force in February and June, 2012. At the CCA Annual General Meeting, Perth, November 2012, the Health and Welfare Task Force supported the project (with one amendment recorded).

At the direction of CCA no consultation has occurred with animal welfare lobby organisations or with RSPCA Australia. CCA has instructed that RSPCA may be briefed on the project outcomes after the project is accepted by MLA and endorsed by CCA (Stakeholders Workshop, October 31, 2012).

There has been no consultation with the Australian Dairy Industry Corporation. MLA has accepted this consultation role once the project is finalised. (Stakeholders Workshop, October 31, 2012).

The project proposal involved a national producer consultation component. However, advice from the northern Australia Regional Beef Industry Committees and from CCA members was that this was not realistic in the format proposed. Their advice was to work with the peak industry bodies until the project was submitted to MLA.

Extensive consultation with the northern industry has occurred. At the commencement of the project it was discovered that the “northern industry” had not been fully consulted during the development of the project proposal. There was considerable concern from producer representatives (Agforce Cattle Committee), State Agriculture agencies (Northern Territory and Queensland) at the extension level and consultants to MLA. To develop support for the project a workshop was conducted in Brisbane (9 November, 2011) and on 2 December, 2011, a presentation was made to the Northern Beef Industry Committee (NBIC) Chairpersons Committee. As a result of these activities the northern industry supported the project.

The AWWWS (Stakeholders Workshop, 31/10/12) supported the national description and language, and proposed to include the extension material on its DAFF Website.

4.2 Equivalence between the National Livestock Language – Cattle and Body Condition Score

The proposed equivalence between the two live cattle description languages was reviewed by a technical panel of research and advisory people with expertise in live animal assessment (Brisbane, August 1 and 2, 2012).

A premise of the technical basis of this classification of low condition cattle has been that as cattle lose fat cover then muscle is also reducing in mass, recognising that as fat cover

reaches 'zero' the muscle mass has reduced significantly. At this point muscle becomes the survival tissue to provide energy when insufficient dietary energy is available.

Research data from the NSW DPI Muscle Selection Project (MLA Project B.SBP.0085) and the CRC II Northern Breeding Project support this premise. It is now established that muscle is just as important as fat as a 'body store' for the tissue mobilization of energy in feed deficit conditions. A report on this technical workshop is documented as Appendix 1.

Important outcomes of the workshop were to agree on common criteria to be applied to each classification within the two languages and the 'equivalence' between the two languages (Table 1). Industry has taken ownership in the project and the perceived "threat" of the project outcomes has been greatly reduced. Several experienced northern industry beef extension specialists were able to contribute to the project initiatives (Milestone Report 3, May 2012).

A national description and language to describe low body condition cattle was supported by all the industry bodies present at the Stakeholders Workshop, October 31, 2012 (Sydney, MLA Boardroom).

4.3 Government welfare agency support (State/Federal)

The Animal Welfare Sub-Committee (Chair: Dr Rick Symons, DAFFQ,) recognises the value of the description and language concept and when approached by MLA would move to encourage individual states to adopt the concept for welfare regulatory use. NSW has since February 2012, adopted a system similar to the concepts proposed by this project and is prepared to adopt the national proposals when they are endorsed by MLA.

Table1. Equivalence between languages

National Language		Body Condition Score	Comment
Muscle	Fat		
E	0	0	Welfare
D	0	1	Welfare
B-E	1	2	Trigger
A-E	2	3	Management
A-E	3	4	Management
A-E	4	5	Management
A-E	5	5	Management
A-E	6	5	Management

The technical review provided several major points of difference in relation to the CCA directions at the beginning of this project:

- the use of the terms 'weak' and 'strong' within category names was not supported
- the definitions of 'strength' and 'fatigue', as part of an assessment process were supported
- the use of a numeral 'zero' for lowest categories was recommended

- muscle score must be included in the language as it is an integral component of the National Live Stock Language – Cattle and well understood in most of southern Australia.

The development of the visual description concept plus the national language has led to the opportunity to update the existing national language for cattle. The proposed additions to the National Livestock Language - Cattle are included in Appendix 2 and key to this, is the recognition of a standard body condition score (BCS 0-5) for industry.

The national training program to assist with on-farm nutritional management for production and regulation is described in Appendix 3.

4.4 Industry concerns

Industry concerns were initially documented in Milestone Report 2 (December 2011) and documented as an Industry Concerns Discussion Paper (Appendix 4) and these have been addressed by the project.

Across industry sectors there is support for the proposed descriptive language and diagrammatic representation. There is still some apprehension about how the descriptive language may be used to impact on individual sectors. For example:

- the Australian Live Stock Markets Association (ALMA) are concerned that such a description language may reduce store cattle yardings at member selling centres
- the Australian Livestock and Property Agents (ALPA) do not see value in having 'posters' at saleyards depicting low condition cattle
- the Australian Livestock and Rural Transporters Association (ALRTA) do not see the concept as completely solving their problem of being "expected" by clients to transport low condition cattle.

The ALRTA Stakeholders Workshop (October 31, 2012) voiced concerns that CCA representation was not sympathetic to their problem of "carrying away the problem".

The CCA Health and Welfare Task Force have expressed concerns that the proposed descriptions and language will be incorporated into the Standards and Guidelines -Beef Cattle (currently in their final draft format). The Task Force has been told that this will not be a recommendation from the project. The proposed descriptions and language sit below the Standards and Guidelines in a category known as "industry advisories". The role of "industry advisories" is to provide detail of technical information providing best practice advice to industry.

4.5 Industry opportunities

The industry consultation process of the project highlighted the following opportunities.

4.5.1 Land transport

Livestock transporters, selling centres and livestock agents all share the problem of receiving low condition cattle particularly during drought periods. There is an opportunity for these three sectors to have a standard language and set of procedures when low condition cattle are encountered. This would complement the existing "Is it fit to load?" guide.

Industry bodies interested in developing this concept include the Australian Livestock and Rural Transporters Association (ALRTA), the Australian Livestock and Property Agents (ALPA) and the Australian Livestock Markets Association (ALMA).

The standard language and procedures could be then put to the RSPCA (national and state) for endorsement.

4.5.2 National training for welfare regulators

The NSW DPI Training Package (1.5 days) could be offered to welfare regulators in each State and Territory. This would provide nationally uniform training, accredited to National Competency Standards. Training would be tailored to meet the needs of the regulator.

Delivery of training would be through either:

- a) a consultancy contract between the NSW DPI and MLA or with each jurisdiction individually or jointly
- b) Train-the-Trainer contract between MLA and NSW DPI aimed at state/territory trainers in their respective jurisdictions.

4.5.3 Live export training

The current review (late 2012) of the Australian Standards for Export of Livestock (ASEL) being conducted by DAFF, has indicated that outcomes from this project would be most useful in training programs for livestock handlers within and outside Australia who work in the live cattle export industry. (DAFF Dr Lynn Simpson, Senior Veterinarian Animal Welfare Branch Technical and Legal Unit) suggested that visual and language free material would be most useful for this sector.

4.5.4 Breeding cow management (Northern Australia)

Dr Geoff Niethe (MLA Consultant, Northern Industry) has expressed interest in the proposed visual descriptors and language to assist breeding cow management in northern Australia. The concepts are relevant to cull cow selection and subsequent management to improve financial returns from cull cows sold “over-the-hooks” or through saleyards.

The development of producer skills in assessing cattle for muscle and fat cover has been recognised as a key to improving producer returns through more consistently hitting higher priced grid market specifications. This is particularly relevant to cow sales which are consistently 30% of cattle sales income.

4.6 Communication concepts

A number of draft training information packages (Tips and Tools) are included in Appendix 5. An e-learning tool and producer group extension tool are shown in Appendix 6. With further development this tool can be adapted to fit multiple training uses, particularly for on-line learning across the beef industry and in agricultural education (Certificate IV and above).

A ‘glove box’ guide, in the same format as the “Fit to Load” booklet is supported by all industry stakeholders. A northern and southern edition have been drafted. See Appendix 7.

An article in the MLA *Feedback* publication would be a useful method of creating awareness within the beef industry. The level of producer interest could be measured by the request for an information CD containing the suite of ‘Tips and Tools’, e-learning tool and “glove box” guide.

Members of ALMA, ALPA, and ALRTA should receive the “glove box” guide in hard copy plus the information CD. The e-learning tool should be available as part of the on-going accreditation for livestock agents and in initial training programs.

The national visual descriptors and language put forward by this project are applicable to the live cattle export industry. The minimal acceptable body condition of an animal for export can be easily determined using the visual descriptors. A set of drawings and language (Appendix 8) have been drafted for potential use by LiveCorp for the trade to Indonesia where all animals must be less than 350 kg live weight. The “Fit to Export” glove box guide should be updated to reflect the new language and supplied direct to producers supplying the export supply chain. Provided there are no privacy concerns, this could be done using NLIS records and for last movement being property to export only.

A teleconference was held with State/Territory agencies on 14 November 2012. At this teleconference, a train-the-trainer workshop was supported as the key activity for developing ownership of the proposed descriptors and language together with a national philosophy on the handling low body condition welfare situations. The philosophy of “helping” producers, not prosecuting producers” was unanimously supported.

South Australia did not participate but are known to be supportive of the national visual description and language. The Northern Territory did not participate and Neil MacDonald (NTDPI) has given ‘guarded’ support (personal communication) on 15 November 2012. There has been no response from NT Animal Welfare regulators.

The State/Territory expectations are that MLA would fund the train the trainer workshops including travel, accommodation/meals, and venue costs. Funding from the AAWS should be applied for to help offset these costs.

The training format would be based on the NSW DPI model but for cattle only and be of two days’ duration so as to include discussion time for a consensus on “helping not prosecuting” producers for adoption nationally (recognising individual state regulations).

The following Table 2 shows the proposed communication and delivery formats for the different industry sectors.

Table 2. Proposed communication and delivery formats for different industry sectors

Sector & description	'Tips and Tools'	Training Package	Comments
Live Export Acceptable body condition for live export (1) Breeding cows and heifers (2) Steers	✓	✓	Target all NLIS export properties
Training/Regulatory and Extension A new way of describing beef cattle in low condition		✓	Only available in training activities
Assessing low condition <i>Bos indicus</i> breeds and crosses	✓	✓	Incorporate into northern industry programs
Assessing low condition <i>Bos taurus</i> breeds and crosses	✓	✓	Incorporate into southern industry programs
Live Assessment Training Manual (copyright NSW DPI)		✓	Training activities only A component of all training packages
Producer awareness/education A national guide to describing beef cattle in low body condition (1) Northern (2) Southern	✓		
Assessing strength in beef cattle	✓	✓	
Assessing fatigue in beef cattle	✓	✓	
Transporting low condition beef cattle	✓	✓	
Preparing low condition cattle for transport	✓	✓	
Suitable feeds pre-transport for low condition beef cattle	✓	✓	
How much feed do drought affected beef cows need?	✓	✓	Also group extension and industry training
Producer education e-learning tool		✓	
Acceptable for live export (1) Steers/heifers 350 kg and less (2) Breeding cows and heifers	✓		A glove box guide Target suppliers via NLIS and National Vendor Declaration/Waybill

The following MLA funded projects could utilise the descriptors and language proposed by this project:

- Laser measurement (NSWDPI/UTS) of live cattle
- Video imaging (NSWDPI/UTS) of live cattle - Project No. B.BSC 0339
- Muscle Selection Line Project (NSWDPI) - Project No. B.SBP 0085
- Breeder Management Program – North Australia
- Beefspecs – meeting carcass specifications for cow beef - Project No. B.SBP 0108

Alex Ball, MLA Program Manager, Meat Quality R&D has requested a proposal be put forward by NSWDPI to develop a Beef Specs for cows, as a result of this project. This tool would allow producers to make better informed decisions on cull cow sales and will be a useful early drought management tool encouraging the adoption of early destocking by producers.

The description and language proposed by this project could be part of a regional decision-tree concept that puts an on-farm emphasis on sustainability and the producer skills needed to attain sustainability.

The key elements for the decision tree are:

1. Describe the body condition of your breeding cows (by paddock, mob, or overall)
i.e. do 50% of cows look like:
Choose from
 - a) B – E 1 / BCS 1 drawings Select Y or N
 - b) D 0 / BCS 0 drawings Select Y or N
2. How much pasture is there DM/ha (by paddock/overall)
i.e. does 50% of your pasture look like this:
 - a) 2000 kg DM (dead/dry) photo Select Y or N
 - b) 1000 kg DM (dead/dry) Select Y or N
 - c) less than 1000 kg (dead/dry) photo Select Y or N
3. Are the cows in-calf?
Choose one from:
 - a) 1-5 mths
 - b) 6-9 mths
 - c) empty
4. Do the cows have calves at foot?
Choose one from:
 - a) 0-2 mths old if a) over 80 kg liveweight Y or N
 - b) 3-6 mths if b) over 80 kg liveweight Y or N
 - c) more than 7 mths
5. What is the pasture/herbage groundcover (by paddock)?
Choose from:
 - a) Less than 90% hill/undulating country
 - b) less than 75% flat country

The short list of potential actions, from answering these five questions, provide a logic based situation appraisal that impacts on animal welfare, pasture and land sustainability.

5 Discussion and conclusions

Industry bodies have indicated their general support for the concept of visual descriptions and a language to describe beef cattle in low body condition. At the stakeholders workshop 31 October 2012, no industry body registered a lack of support. No non-support responses have been received in writing by the project team members.

The CCA has supported the project since its active involvement in February, 2012. The CCA requested that no consultation be undertaken with welfare bodies and only the RSPCA (National) will be informed once industry has approved the project proposals.

It is understood that the Cattle Council Health and Welfare Task Force will have final approval of the adoption phase of this project and the content.

The new Land Transport Standards and Guidelines appear to have been interpreted differently by industry sectors with respect to the “shared” responsibility detailed in the document, and the perceived impacts on their sector. All industry sectors need to clarify their respective member responsibilities in this regard.

The National Live Stock Language - Cattle has not been reviewed since June, 1993 and there is no electronic version of the document held by either Meat & Livestock Australia or Cattle Council of Australia. AUS-MEAT handed over responsibility of the National Live Stock Languages (Cattle and Sheep) to AMLC when they attained individual status (personal communication Ian Kings, Managing Director, AUS-MEAT). The project team was not able to locate anyone within MLA having responsibility for maintaining and updating the language. Advice from CCA has been to assume that the CCA Board in 1993 ‘accepted’ the review of June 1993.

Whilst the project proposed traditional extension and communication methods to encourage adoption, there is scope for innovative e-learning techniques where the focus is on linking low body condition with production losses and encouraging on-farm management triggers. These are relatively expensive to produce but, given the decline in State agency beef industry extension nationally, e-learning methods offer potentially viable extension methods. Incorporation into existing MLA programs should be a high priority. In the southern beef industry, the Prograze workshop program is the ideal medium. In the northern industry the EDGE Grazing Land Management, Nutrition and Breeding training packages offer a similar, suitable medium.

Within the live export industry, the proposed visual description, national language and standardisation of descriptors such as ‘strong’ and ‘fatigue’ will help to comply with the Australian Standards for the Export of Livestock. Both LiveCorp and the DAFF personnel have expressed written and verbal support for the proposed descriptors and language as part of “industry advisories”.

The establishment of an “equivalence” between the National Live Stock Language based on muscle and fat assessment scores and the Body Condition Score system (0-5) used extensively in the northern industry has been an important achievement. Without this equivalence the ‘national’ concept would have failed. The proposed additions to the National Live Stock Language – Cattle bring the language up-to-date with contemporary science and experience available to the beef industry.

Whilst body condition scoring is recognised as a live assessment tool there is considerable

evidence from the beef CRC II research to show that body condition scoring and muscle/fat assessments are highly correlated. Given this increasing body of evidence, a time frame of five years to phase out the use of body condition scoring in the north should be considered. A northern industry more skilled in assessing muscle and fat cover would benefit from an increased ability to target abattoir price grids (both steers and cows) more precisely, resulting in improved producer returns.

Comprehensive consultation across the industry and contemporary science supports the visual description and language tools and supporting extension and education concepts proposed by this project.

6 Appendices

Appendix	Title
1	Proposed additions to the National Live Stock Language – Cattle
2	A New Way of Describing Beef Cattle in 'low' Condition
3	National Training for Regulators
4	Industry Concerns Discussion Paper
5	Proposed 'Tips and Tools' Series
6	Electronic Learning Concepts
7	Glove Box Guidelines, Southern Production and Northern Production
8	National Descriptors and Language for the Live Export Industry

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