Economic Commission for Europe
Steering Committee on Trade Capacity and Standards
Working Party on Agricultural Quality Standards
Specialized Section on Standardization of Meat
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Item 4 of the provisional agenda
Eating quality
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Specialized Section on Standardization of Meat

Eating quality *

Submitted by the secretariat

The following draft contains the proposed additions to the UNECE Standard on Bovine meat by the working group on eating-quality (chaired by Poland). Delegations are invited to review the proposals and submit their comments in view of adoption of a revised standard. The document is submitted according to ECE/TRADE/C/WP.7/2008/23, ECE/TRADE/C/WP.7/2008/24 and ECE/CTCS/2015/7 (part II, section A, subsection c).

* Submitted on the above date to allow for proposals made at the working group meeting.
Recommended additions to the bovine standard language

The working group chaired by Poland as lead Rapporteur recommends a number of additions to Section 5.7, Meat Quality Standards, of the UNECE Bovine Language. These additions enhance the language and enable more detailed description of traits for standardised assessment and reporting. The additions will facilitate international collaboration between research groups addressing beef eating quality and prediction while also providing standards that may be utilised in beef carcase grading.

An important allied consideration is the agreement by AUS-MEAT PTY LTD to provide training and certification in use of the standards to ensure that reported assessments are consistent. It is noted that while the AUS-MEAT reference standards are listed within the language at present they are effectively not able to be utilised without the provision of training and certification and the ability for standards to be purchased. The working group is pleased to report that AUS-MEAT have advised that they are willing to provide these needs within Europe and other regions on a commercial basis including through collaboration with the International Meat Research 3G Foundation. AUS-MEAT and an expert scientific working group appointed by the Foundation will further consider and endorse detailed standards application for documentation as addendums to the UNECE Bovine Language.

The working group discussion paper provides further detailed discussion of alternative measurement systems and rationale for the recommendations.

A. Recommended additions in Section 5.7 - Meat Quality Standards

1. Section 5.7.1 Meat Colour Reference Standards.
   It is recommended that the meat colour chips be made available for purchase to persons who have participated in a certified training course and attained a pass standard.

2. Additional section. pH Measurement Standards.
   It is recommended that pH measurement be defined within the language. pH measurement must be undertaken with a calibrated pH meter and recorded in conjunction with temperature. It is recommended that a Bendall correction factor to 7°C be adopted for reporting pH.

3. Section 5.7.2 Fat Colour Reference Standards.
   It is recommended that the fat colour chips be made available for purchase to persons who have participated in a certified training course and attained a pass standard.

4. Section 5.7.3 Marbling Reference Standards.
   It is recommended that the current AUS-MEAT marbling scores with a 0 to 9 range referenced in the Bovine Language be replaced by the Meat Standards Australia marbling standards which provide for increments of 10 over a scale from 100 to 1190. These scores are generally aligned with United States Department of Agriculture (USDA) marbling standards and it is further recommended that an expert working group be formed by USDA and MSA/AUS-MEAT to establish an agreed conversion between the two scales where necessary. It is recommended that the marbling standards be made available for purchase to persons who have participated in a certified training course and attained a pass standard.

5. Additional section. Skeletal Ossification Reference Standards.
   It is recommended that the USDA/MSA skeletal ossification standards be adopted within the Bovine Language. The MSA visual plates are recommended as assessment tools to be made available in conjunction with training and certification. It is recommended that the marbling
standards be made available for purchase to persons who have participated in a certified training course and attained a pass standard.


It is recommended that where birth date data is available animal age be recorded in days for research reporting purposes.


It is recommended that hump height be added to the Bovine Language due to its’ value in contributing to eating quality prediction for tropically adapted cattle and potential application in assessing entire male cattle.

B. Recommended additions of carcase muscling, fat and yield indicators

Carcase description and related trading commonly include measures of muscling and fatness that relate to meat yield in lean or saleable cuts. It is recommended that standard assessment measures for muscle and fat be added to the Bovine Language and be assigned by either certified assessors or approved image analysis systems. It is further recommended that provision be made for later addition of yield prediction from objective assessment technologies.

Recommended additions are:


It is recommended that the 15 step EUROP muscle classification system be adopted as the UNECE standard.

2. Additional section. Carcase Fatness Reference Standard

It is recommended that the 15 step EUOP fat classification system be adopted as the UNECE standard.

3. It is recommended that provision be made for yield measures from new technology including standardised output standards to describe lean meat yield.

Appendix.

UNECE Special Working party discussion paper on developing a draft proposal for sharing of information relating to beef eating quality.