



Australian Government

Department of Education, Employment and Workplace Relations

MTMP3095A Grade beef carcasses using Meat Standards Australia standards

Release: 1

MTMP3095A Grade beef carcasses using Meat Standards Australia standards

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to grade beef to Meat Standards Australia (MSA) standards. It is an MSA requirement that enterprises with a Level 1 (b) licence have company graders who have a Statement of Attainment in this unit of competency or an MSA approved equivalent unit. Attainment of this unit does not qualify a participant for accreditation as an MSA grader. Participants must contact MSA on 1800 111 672 to organise accreditation.
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Application of the Unit

Application of the unit	The skills and knowledge gained from this unit allow company chiller assessors to apply to MSA for accreditation to grade beef to MSA standards.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Apply the MSA system	1.1. Consumer preferences for eating quality traits are identified. 1.2. Factors impacting on eating quality are identified. 1.3. The role that DNA samples have in the MSA system is identified and explained.
2. Grade beef carcasses to MSA standards	2.1. Grade codes are accurately identified and allocated. 2.2. Boning room group of a carcass is identified. 2.3. Maturity, MSA marbling, hump height, fat distribution and hide puller damage are assessed to MSA standards. 2.4. Equipment used for measuring ultimate pH is calibrated, maintained and operated, and calibration results are recorded. 2.5. Ultimate pH is measured. 2.6. Hanging method is identified. 2.7. DNA samples are collected, stored and despatched according to MSA standards. 2.8. MSA graded carcass product is identified 2.9. AUS-MEAT chiller assessment measurements of the carcass to be graded are recorded.
3. Operate MSA software and hardware to record grading details and generate eating quality outcomes	3.1. MSA software and hardware are accessed and operated. 3.2. Data is entered, stored, sorted, retrieved, checked and validated, interpreted and forwarded. 3.3. Grading reports and labels are generated.
4. Complete the MSA vendor declaration system	4.1. Essential information on a vendor declaration is identified. 4.2. Vendor declaration is signed. 4.3. Data Capture Unit (DCU) defaults are activated in accordance with the vendor declaration. 4.4. Records of MSA vendor declarations are stored in accordance with MSA requirements.
5. Stamp, ticket or label MSA graded carcass product	5.1. System for identifying graded product is identified. 5.2. Slaughter floor ticket information is applied. 5.3. Stamping of product is completed.
6. Adhere to the MSA Standards Manual for Grading	6.1. All aspects of MSA grading are completed in accordance with the Standards Manual and Licensing requirements. 6.2. Carcass is graded according to the MSA system. 6.3. Grading problems are identified and resolved.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- demonstrate proficiency with all aspects of the DCU system
- demonstrate proficiency with all aspects of the **MSA model**
- describe all carcass attributes that are collected
- apply relevant communication and **problem-solving skills**
- apply relevant Occupational Health and Safety (**OH&S**), **regulatory** and **workplace requirements**
- maintain currency of knowledge through independent research or professional development
- apply all MSA grading reports
- take action to improve own work performance as a result of self-evaluation, feedback from others, or in response to changed work practices or technology
- work effectively as an individual and as a member of a team

Required knowledge

Knowledge of:

- requirements of the MSA Standards Manual for Grading
- carcass hanging methods and their impact on eating quality
- fat distribution
- hump height and tropical breed content
- marbling
- **ossification**
- conventions of using **ZIP files**
- hide puller damage
- **essential operating conditions** for use of the MSA system, including the equipment required for grading
- importance of the DNA system to the integrity of the MSA program
- information on a carcass ticket that is necessary for MSA Grading
- minimum mandatory ageing period for MSA product
- MSA vendor declaration system
- relationship between DCU, stamps, boning room groups, boning group tables and labels
- how ageing affects eating quality and how its effect is incorporated onto the MSA

REQUIRED SKILLS AND KNOWLEDGE

- system
- how the carcass stamping system works
- how the MSA web site is used for feedback purposes
- pH
- AUS-MEAT chiller assessment standards
- eating quality levels in MSA
- link between carcass ticket information and grading results
- ***MSA minimum requirements***
- Palatability Analysis Critical Control Points (PACCP) approach to eating quality
- process of sampling and storing DNAs
- relationship between AUS-MEAT chiller assessment and MSA grading
- relationship between cut and cooking method
- role of boning room groups and tables
- what a CMQ4 score is
- ***minimum standards of performance***
- potential grading problems and suggest solutions
- MSA grading reports

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

The meat industry has specific and clear requirements for evidence. A minimum of three forms of evidence is required to demonstrate competency in the meat industry. This is specifically designed to provide evidence that covers the demonstration in the workplace of all aspects of competency over time.

These requirements are in addition to the requirements for valid, current, authentic and sufficient evidence.

Three forms of evidence means three different kinds of evidence - not three pieces of the same kind. In practice it will mean that most of the unit is covered twice. This increases the legitimacy of the evidence.

All assessment must be conducted against Australian meat industry standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Competency is to be assessed in the workplace. Assessment is to occur under standard and authorised work practices, safety requirements and regulatory requirements.

Context of, and specific resources for assessment

Competency must be demonstrated in the grading of actual carcasses, and not simulated.

Method of assessment

Assessors will need to visit the applicant's workplace on at least one occasion. Recommended methods of assessment include:

- evidence log book
- examination of assessed product
- observation of the applicant working
- written tests and/or questioning.

Assessment practices should take into account any relevant language or cultural issues related to Aboriginality or Torres Strait Islander, gender, or language backgrounds other than English. Language and literacy demands of the assessment task should not be higher than those of the work role.

EVIDENCE GUIDE**Guidance information for assessment**

The trainer and assessor must have the following qualifications:

- Statement of Attainment in MTMP3095A Grade beef carcasses using Meat Standards Australia Standards or Module 6 MSA Grading
- successful completion of the AUS-MEAT chiller assessment course
- successful completion of Overview of meat science relating to the eating qualities of beef, Apply meat science to eating quality, or Module 9 MSA Meat Science.

Trainers and assessors must also demonstrate AUS-MEAT chiller assessment and MSA grading currency.

A current list of resources for this Unit of Competency is available from MINTRAC www.mintrac.com.au or telephone 1800 817 462.

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Usage of ***MSA system*** may include:

- backing up data
- data validation
- ensuring currency through regular updating
- explaining MSA Producer Codes
- sending files and receiving updates
- updating through the MSA web site.

Factors impacting on eating quality include:

- carcase weight
- fat distribution
- hanging method
- hide puller damage
- hormonal growth inputs

RANGE STATEMENT	
	• hump height • milk fed vealers • MSA marbling • ossification • saleyard consignment • tropical breed content.

RANGE STATEMENT	
<i>Marbling</i> includes:	• description of what marbling is • the effect marbling has on eating quality and grading outcomes • the MSA correlation standard for marbling • the scale of measurement for marbling.
<i>Fat distribution</i> includes:	• the MSA correlation standard for fat distribution • the relationship between fat distribution and eating quality • the MSA requirements for overall fat distribution • what insufficient fat distribution can result from.
<i>Hide puller damage</i> includes:	• causes of hide puller damage • recording of hide puller damage • the MSA correlation standard for hide puller damage • the MSA requirement for hide puller damage • the relationship between hide puller damage and eating quality.
Grading <i>equipment</i> may include:	• AUS-MEAT Eye Muscle Area Grid • AUS-MEAT marbling reference • AUS-MEAT meat and fat colour chips • computer • DCU and charger • DNA samples • download cable • Hump Height reference • MSA Carcase Stamp • MSA marbling references • MSA maturity references • MSA software • pH meter and probes • steel ruler • torch kit.
<i>Hanging method</i> includes:	• Achilles tendon and tenderstretch through the aitch bone or through the iliosacral ligament • advantages and disadvantages of tenderstretch • the relationship between hanging method and eating quality.

RANGE STATEMENT	
<i>pH</i> includes:	- describing the relationship between ultimate pH and rate of pH decline - how to check battery power and change the date and time on a pH meter - identifying the pH/temperature window and the impact of missing the window on eating quality - the necessary factors needed to record calibration results - the relationship between glycogen, stress and pH - the relationship between pH and eating quality - the required intervals for calibration of both pH and temperature probes.
<i>MSA graded carcass product</i> may include:	approved primals or portions from MSA carcasses that were graded in accordance with the MSA Standards Manual for Grading.
<i>DCU</i> system familiarity may include:	- changing tag types - changing time and date on DCU - current DCU program file and the process used to load this program - DCU defaults and their link to impact on grading results or MSA requirements - DCU fields - DCU operation and maintenance - different DCU files - different types of DCU files - entering grading data - grader codes and pin numbers for individuals - identifying and utilising DCU function keys - instances when it is necessary to load a DCU program file - naming and downloading DNL files - program used to download files - program used to load the DCU set up files - scanning tickets and/or manual entering of data - the main menu.
<i>MSA Standards Manual</i> for Grading includes:	- on farm responsibilities for MSA producers - protocol for conducting monthly declines - requirements for MSA saleyards

RANGE STATEMENT

- requirements for the boning rooms of licensed enterprises
- requirements for the chilling operations of licensed enterprises
- requirements for the grading operations of licensed enterprises
- requirements for the livestock receipt or lairage of licensed enterprises
- requirements for the loadout of licensed enterprises
- requirements for the pH or temperature relationship of licensed enterprises
- requirements for the slaughter floor of licensed premises.

RANGE STATEMENT	
Knowledge and application of MSA grading requirements must include:	• Grade Codes and why they are used • MSA butcher bodies and why they require labels • MSA Grade Codes and their respective criteria • MSA mandatory feedback requirements • Quinns butcher bodies • the information that must be contained on MSA carton labels • the two options for generating carton labels.
MSA model requirements include:	• MSA Standards Manual for Grading • MSA Standards Manual for Saleyards Consignment • MSA Standards Manual for MSA Trade Mark Usage.
Communication skills may include:	• applying numeracy skills to workplace requirements • interpreting the needs of internal or external customers • listening and understanding • reading and interpreting workplace-related documentation • sharing information • speaking clearly and directly • writing to audience needs.
Problem-solving skills may involve	• developing practical and creative solutions to workplace problems • identifying opportunities and solutions that might not be obvious to others • solving problems individually or in teams • using numeracy skills to solve problems.
OH&S requirements may include:	• enterprise OH&S policies, procedures and programs • OH&S legal requirements • Personal Protective Equipment (PPE) which may include: • coats and aprons • ear plugs or muffs • eye and facial protection • head-wear • lifting assistance

RANGE STATEMENT	
	• mesh aprons • protective boot covers • protective hand and arm covering • protective head and hair covering • uniforms • waterproof clothing • work, safety or waterproof footwear. • requirements set out in standards and codes of practice.

RANGE STATEMENT	
Regulatory requirements may include:	• Export Control Act • relevant regulations and Australian Standards • requirements set out in AS 4696:2007 Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption • federal, state and territory regulations regarding meat processing.
Workplace requirements may include:	• enterprise-specific requirements • hygiene and sanitation requirements • OH&S requirements • Quality Assurance (QA) requirements • Standard Operating Procedures (SOPs) • the ability to perform the task to production requirements • work instructions.
Ossification includes:	• frosting and its impact on ossification scores • identifying the regions in which maturity is assessed • MSA minimum requirements and measurement scale for ossification • the MSA correlation standard for ossification • the relationship between connective tissue, age and growth • the relationship between maturity and eating quality.
Usage of ZIP files may include:	• backing-up files to server • creating ZIP files • checking data for errors and validating data • explaining the difference between a ZIP file and a DNL file • generating, interpreting and printing Butcher Body Labels and MSA Carton Labels • generating, interpreting and printing MSA feedback reports • logging onto MSA model and importing DNL file • using naming conventions for a ZIP file • sorting, filtering, finding a particular field, replacing and deleting data • using the three different types of ZIP files

RANGE STATEMENT	
	• understanding the purpose and potential applications of ZIP files • updating plant, brand and producer codes for each lot • viewing statistics for a number of options.
Essential operating conditions include:	• appropriate software and hardware • carcasses that have met AUS-MEAT pre-chiller assessment requirements • establishment must be MSA licensed • grading equipment that is accurate and fully charged • MSA and AUS-MEAT reference standards.
Knowledge of MSA minimum requirements must include:	• the MSA minimum requirement for AUS-MEAT meat colour • the MSA minimum requirement for fat distribution and hide puller damage • the MSA minimum requirement for ultimate pH • the MSA minimum requirements for subcutaneous rib fat/p8 fat.
Minimum standards of performance include:	• currency in AUS-MEAT chiller assessment • currency in MSA grading.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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