



Australian Government

Department of Education, Employment and Workplace Relations

MTMS218B Measure and calculate routine workplace data

Release: 1

MTMS218B Measure and calculate routine workplace data

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to calculate and record workplace measurements commonly used in the meat industry and includes the use of measuring instruments.
------------------------	---

Application of the Unit

Application of the unit	Skills to measure and calculate statistical data are used widely throughout the retail, smallgoods and processing sectors of the meat industry, for example: • measuring and calculating production statistics • recording production statistics • calculating consumption and replacement requirements of gloves, caps and other safety equipment • estimating or measuring quantities of ingredients.
--------------------------------	--

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

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.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use routine measuring instruments	1.1. Measuring instruments are selected and used to measure common workplace units. 1.2. Faults with measuring instruments are identified and reported according to standard procedures.
2. Calculate routine workplace measures	2.1. Basic mathematical processes are used to calculate routine workplace measures of product characteristics. 2.2. Calculations are verified by using estimating techniques.
3. Calculate performance measures	3.1. Percentages, ratios and proportions are calculated to derive information about workplace requirements and performance. 3.2. Deviations in performance are identified and measured to determine the extent of variations.
4. Record routine workplace data	4.1. Results are recorded on standard graphs or charts. 4.2. Errors in recording information on charts are identified and rectified. 4.3. Graphs or charts are interpreted to identify trends and variations.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Ability to:

- identify routine faults in measuring instruments
- achieve consistent levels of accuracy
- interpret mathematical symbols and diagrams
- explain the purpose of graphs or charts
- source and apply new ideas and techniques to address unfamiliar situations or resolve problems
- explain the relationship between different measurement scales
- apply relevant Occupational Health and Safety (**OH&S**), workplace and **regulatory requirements** whenever undertaking numeracy tasks in a meat industry

REQUIRED SKILLS AND KNOWLEDGE

environment

- present mathematical data for use in the workplace
- select, operate and explain the purpose of measuring instruments
- use and apply the principles and units of measurement
- use estimation processes
- use numeracy skills and ***mathematical concepts*** to solve workplace problems
- use relevant ***communication skills***
- verify calculations

Required knowledge

Knowledge of:

- purpose of graphs or charts
- relationship between different measurement scales
- relevant OH&S, workplace and regulatory requirements
- principles and units of measurement

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 must be demonstrated over time and under typical operating and production conditions for the enterprise.

Context of, and specific resources for assessment

Resources may include:

- a real or simulated work environment
- calculators as required
- conversion tables where required
- measuring instrumentation
- relevant documentation, such as:
 - manufacturer's instructions
 - operations manuals
 - regulatory requirements
 - work procedures, including advice on safe work practices, food safety and environmental requirements
 - workplace policies and procedures
- relevant equipment and materials
- work tasks requiring estimation and calculation

EVIDENCE GUIDE	
	workplace forms, documents, charts and graphs used for recording data.
Method of assessment	Recommended methods of assessment include: - demonstration - explanation - observation of performance over time - simulation. 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.
Guidance information for assessment	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.	
<i>Measuring instruments</i> may include:	- gauges - measuring jugs, cups and spoons - meters - scales - vernier callipers.
<i>Mathematical processes</i> must include:	- addition - division - multiplication - subtraction.
<i>Product characteristics</i> may	length

RANGE STATEMENT	
include:	• temperature • volume • weight.
Calculations may be made manually or by calculator, and may include:	• percentages • proportions • ratios • results using decimals, simple fractions and whole numbers.
Performance measures include:	• percentage • proportion • ratio.
Records may:	• be recorded manually • be computer based • be in print form • in an electronic system
Regulatory requirements may include:	• Export Control Act • hygiene and sanitation requirements • licensing requirements • relevant regulations • state and territory regulations regarding meat processing.
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 • 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	
Workplace requirements may include:	• enterprise ethical standards, values and obligations • enterprise-specific procedures, policies and plans • hygiene and sanitation requirements • industrial awards and agreements • Standard Operating Procedures (SOPs) • work instructions.
Mathematical concepts may include:	• faster or slower • heavier or lighter • hotter or colder • shorter or longer.
Communication skills may include:	• applying numeracy skills to workplace requirements • listening and understanding • reading and interpreting workplace-related documentation • sharing information • speaking clearly and directly • working with diverse individuals and groups • writing to audience needs.

Unit Sector(s)

Unit sector	
--------------------	--

Co-requisite units

Co-requisite units	

Competency field

Competency field	
------------------	--