



Australian Government

Department of Education, Employment and Workplace Relations

MTMPS416A Conduct statistical analysis of process

Release: 1

MTMPS416A Conduct statistical analysis of process

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to collect and analyse statistical information relating to meat processing.
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Application of the Unit

Application of the unit	This unit is applicable to managers and Quality Assurance (QA) personnel who are required to analyse monitoring and verification data of a meat production process.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

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. Collect and analyse statistical data drawn from the workplace	1.1. Samples from a process line are selected. 1.2. Statistical calculations on a sample are conducted.
2. Use statistical analysis to verify the process	2.1. Relevant graphs and charts are prepared. 2.2. Trends and cyclic patterns of control graphs are identified and analysed.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Ability to:

- apply statistical information to the analysis and verification of a process
- calculate simple statistical measures
- cooperate with monitors to ensure data is accurate and provided on time
- use a range of information and communications technology and software, including statistics management and analysis programs
- conduct trend analysis of meat processing data
- explain the verification process using statistical data
- identify and apply relevant ***Occupational Health and Safety (OHS)***, ***regulatory*** and ***workplace requirements***
- perform basic statistical calculations on data from samples drawn from the workplace
- prepare control graphs and use charts as relevant
- prepare reports on the outcomes of the statistical analysis of monitoring data
- use and explain simple ***statistical measures***, such as mean, range, frequency, mode and median
- use relevant ***communication skills***.

Required knowledge

Knowledge of:

- statistical measures, such as mean, range, frequency, mode and median.

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

Assessment must involve the analysis of a range of process and product verification data.

Context of and specific resources for assessment

Assessment can use either real or simulated data.

Method of assessment

Recommended methods of assessment include:

- assignments
- debriefs
- quiz of underpinning knowledge
- simulation
- verified work log or diary
- workplace demonstration
- workplace project
- workplace referee or third-party report of performance over time.

Assessment practices should take into account any

EVIDENCE GUIDE	
	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>OH&S requirements</i> 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 • mesh apron • 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	
<i>Regulatory requirements</i> may include:	• Export Control Act • hygiene and sanitation requirements • relevant Australian standards • relevant regulations • requirements set out in AS 4696:2007 Australian Standard for Hygienic Production and Transportation of Meat and Meat Products for Human Consumption • state and territory regulations regarding meat processing.
<i>Workplace requirements</i> may include:	• enterprise-specific procedures • OH&S requirements • QA requirements • Standard Operating Procedures (SOPs) • the ability to perform the task to production requirements • work instructions.
The type of <i>statistical measures</i> applied may include:	• simple averaging (mean) • range • frequency (mode) • middle (median) • analysis for trends, control charts and regression analysis or statistical tests of variability.
<i>Communication skills</i> may include:	• applying numeracy skills to workplace requirements • being appropriately assertive • empathising • establishing/using networks • interpreting the needs of internal/external customers • listening and understanding • negotiating responsively • persuading effectively • reading and interpreting workplace documentation • sharing information • speaking clearly and directly • working with diverse individuals and groups • writing to audience needs.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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