



Australian Government

AMPA404 Conduct and validate pH and temperature declines to MSA standards

Release: 1

AMPA404 Conduct and validate pH and temperature declines to MSA standards

Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

Application

This unit covers the skills and knowledge required to accurately calibrate and maintain pH equipment, conduct pH and temperature declines and weekly monitoring, as well as to validate results to ensure conformance to the pH and temperature window.

It is a license requirement for Meat Standards Australia (MSA) enterprises to achieve the pH and temperature window.

The skills and knowledge gained from this unit will allow individuals to monitor pH or temperature window to AUS-MEAT and MSA standards. This unit is suitable for people working in Quality Assurance (QA) or a company grading role.

This unit must be delivered and assessed using Australian meat industry standards and regulations.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Operate and calibrate pH equipment	1.1 Conduct temperature calibrations 1.2 Conduct pH calibrations
2. Conduct monthly and	2.1 Demonstrate correct technique for pH and temperature

Element	Performance criteria
weekly monitoring of the pH or temperature window	measurement 2.2 Collect necessary information for validating monitoring 2.3 Collect valid and sufficient readings 2.4 Record and report results
3. Analyse results of pH and temperature monitoring	3.1 Recognise effects of heat shortening and cold shortening 3.2 Identify pH and temperature window
4. Suggest corrective action plans for window non-conformance	4.1 Identify and evaluate factors impacting on pH or temperature window conformance 4.2 Identify reasons for non-conformance 4.3 Conduct trials to achieve window conformance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

MTMP405B Conduct and validate pH/temperature declines to Meat Standards Australia standards	E
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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

Assessment Requirements for AMPA404 Conduct and validate pH and temperature declines to MSA standards

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Performance Evidence

Evidence must demonstrate the candidate's consistency of performance over time at production speed.

The candidate must conduct and validate pH and temperature declines to MSA standards.

The candidate must:

- collect information on live animals for use in pH and temperature monitoring
- conduct monthly and weekly monitoring of the pH and temperature window
- observe, time and follow carcasses through the slaughter floor recording the following:
 - carcase information
 - chiller number
 - immobiliser information (if applicable)
 - rigidity probe information (if applicable)
 - stimulation information (if applicable)
 - time entering the chiller
 - time stunned
- analyse results to verify conformance
- apply relevant communication and mathematical skills
- generate individual and lot average graphs to show pH and temperature window conformance
- identify and apply relevant workplace health and safety, regulatory and workplace requirements
- maintain currency of knowledge through professional development or self-directed research
- operate and calibrate pH and temperature readings
- suggest corrective action procedures

Knowledge Evidence

The candidate must demonstrate a broad factual, technical and theoretical knowledge of:

- the scope and nature of MSA standards
- impact of electrical stimulation on pH decline
- impact of chilling factors on pH and temperature decline
- how the time it takes a carcass to reach the chiller can impact on the rate of pH decline
- pH and temperature window
- how cold shortening occurs and characteristics of cold shortened product
- how heat shortening occurs and characteristics of heat shortened product
- how other electrical inputs can impact the rate of pH decline
- the impact of slaughter floor temperature on rate of pH and temperature decline
- glycogen and the relationship between stress and pH
- what pH is and its importance for eating quality

Assessment Conditions

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

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

A minimum of three forms of assessment must be used.

Assessors must satisfy current standards for RTOs.

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