

Meat Processing

Australian meat is highly regarded in global and local markets for being top quality, wholesome and safe. The success of the industry in these markets sees it making a critical contribution to the Australian economy, bringing in almost \$50 billion in revenue this year.

Seventy per cent of all meat processed in Australia is destined for a growing export market with comprehensive region-specific processing and product standards. Consumer demand and taste have a strong impact on driving the meat industry, promoting new innovations, increased automation, and use of big data. The skilled meat processing workforce is responsible for making sure Australian meat products live up to their strong reputation, operating to the most up to date standards in food safety, quality control, animal welfare, and compliance requirements.

The national skills standards and qualifications for Australia's meat processing industry are overseen by the Meat Industry Reference Committee (IRC).

Employs over
92,000 people

Contributes
\$7.2 billion
to Gross Domestic Product

Revenue of
\$49.3 billion
(Source: IBISWorld Industry Wizard, 2020)

Export over 70% of
production, amounting to
over **\$14.3 billion**
of export income
annually

(Source: IBISWorld, 2020, Australia Industry (ANZSIC) Report C1111: Meat Processing in Australia)



Skills Forecast

Annual update and proposed projects for 2020-2021

This year's Annual Update to the IRC Skills Forecast and Proposed Schedule of Work (Skills Forecast) proposed four key projects for 2020 – 2021 and identified specific changes to the industry environment.

Australia's harsh and changing climatic conditions continue to threaten the ongoing quality and productivity of the industry. There were devastating floods in Queensland during February 2019, and since 2017 significant parts of Australia, especially in New South Wales and Queensland have been experiencing long-running severe drought conditions, with no end to these conditions in sight. Severe bushfires occurred throughout the last quarter of 2019 and continued in to January and February 2020. This has had a significant impact on stock levels, and these conditions will have multiple effects on stock, feed, and employment.

African Swine Fever and the COVID-19 pandemic have also had an impact, and attracting and retaining skilled and capable people to the industry continues to be an ongoing challenge.

Other key industry developments include the increasing amount of retail ready products that the meat processing industry is currently producing and trainer shortages in the smallgoods sector. The increasing amount of retail ready products is blurring the lines between meat processing and meat retailing roles and requires different types of skills for workers who are preparing cuts, portioning product, and packaging products to be ready to go directly onto supermarket shelves. The smallgoods sector is facing a lack of trained people who have the specific skills required for smallgoods production. Anecdotal evidence suggests the qualification is in line with industry needs, but the delivery of the training is not always at the level required. According to one RTO attempting to deliver smallgoods training, the issue is not so much the trainers but the size of the smallgoods qualifications, and also the challenges moving from cooked to raw product. During the course of 2020 the IRC will be seeking additional information to identify causes of and potential approaches to these issues.

Projects for 2020-21

The following projects have been approved by the Australian Industry and Skills Committee (AISC) for 2020-21:

Meat Rendering

Rendering processes offer a safe and effective way to transform animal by-products into a range of valuable proteins, minerals and oils. The Meat IRC recently investigated, through research and consultation, the viability of the Certificate III in Meat Processing (Rendering) to better understand why enrolments in this qualification are declining, while enrolment in individual rendering units are higher. Direct discussions with employers organised through the Australian Renderers Association and with all 17 RTOs revealed that the qualification needs to be reviewed to ensure that changes in technology and trends in international markets are addressed. In addition, two to three skill sets may need to be developed to allow for stand-alone delivery of the rendering units. One new unit of competency may also need to be developed, covering product quality checks.

Electric Slicing Skills (Meat)

The majority of retail butchers use electric slicers to cut both fresh and cooked meats. There are specific skills and knowledge required of workers to safely and effectively use the equipment, to prevent injury and cross-contamination. Currently, there is no unit within in the Certificate III in Meat Processing (Retail Butcher) that covers the use of an electric slicer for a meat retail premises. There is a unit from the smallgoods manufacturing sector which may be suitable, titled AMPS207 Slice product using simple machinery. The unit application states the unit is for use in a smallgoods manufacturing establishment, so reviewing and updating this unit to a cross-sector meat industry unit is necessary. This would mean there would be no need to create a new unit. Instead, the updated unit could be used by retail and other sectors such as poultry, and could also be imported by other training packages such as the FBP Food, Beverage and Pharmaceutical Training Package.

Pre-Rendering Meat Processing Technologies

In the rendering sector, different machines are used to reduce hard and soft tissue to a required size for processing. Sophisticated technologies and techniques are used to convert animal by-products into a range of edible and inedible products. To cover the full range of machinery used it is recommended that the term “size reduction equipment” is used. The units AMPA2158 Operate hogger and AMPA2159 Operate blow line have been identified as using language and terminology that is no longer used by industry, as well as containing redundant performance criteria that is already covered elsewhere in other units. This project would review and update these units to ensure they are current and accurately represent the skills and knowledge required of industry.

The following project will be considered in the second half of 2020:

Training and Assessment Support Materials

This project is for the development of contextualised training and assessment support materials for up to 35 units of competency that have been identified as high priority for the industry. The project will improve consistency of training delivery and assessment across the industry, as well as supporting established and new RTOs to deliver quality services.



Projects

Project work between 2019-20

Outlined over the following pages is a summary of projects managed by Skills Impact, with support from MINTRAC, between July 2019 and June 2020.

The Meat IRC oversaw the project development, as part of their responsibility to support engagement with their industry and to ensure the projects meet stakeholder needs.

The skills standards and qualifications updated as part of the projects for game harvesting auditing, halal meat processing and poultry processing have been provisionally endorsed by the AISC. It is expected that they will be endorsed by the State and Territory Ministers later in 2020.

The project work to review and update the Diploma and Advanced Diploma in Meat Processing is in the final stages. It is expected to be endorsed by the AISC and the State and Territory Ministers in 2020-21.

Diploma and Advanced Diploma in Meat Processing Project

Australia is a major producer of meat for global markets, as well as one of the largest per capita consumers of beef and sheep meat in the world. To keep up with demand and maintain a competitive edge, the Australian meat processing industry requires strong management and leadership skills to develop business strategy, identify opportunities and produce new products. The diploma and advanced diploma level qualifications support the development of skills in management and leadership and are vital to the future of the industry.

Advances in automation and big data present space for innovation in processing methods, while scientific developments like cultured and artificial meat offer the means to develop new products. Leadership skills such as strategy, product development and marketing are required in order to take full advantage of these and other opportunities and to manage the many challenges of the industry, including improvement of animal welfare practices and adherence to the various compliance requirements of international markets..

The Diploma of Meat Processing and Advanced Diploma of Meat Processing define the skills standards needed to effectively manage organisations and the sector more broadly. These qualifications and the units of competency within them have been reviewed as part of this project. Through industry consultation, they have been updated to reflect changes in technology and job roles, and to make them applicable to a broader range of industry sub-sectors, such as feedlots, poultry and maintenance management. Other imported units have been identified where appropriate to cover general skills in management and leadership.

The meat industry has for some years been used to one qualification being embedded in another as they have seen this as a pathway into higher level qualifications. However, as part of the final review process, it was identified that the nesting of the Diploma of Meat Processing within the Advanced Diploma is no longer allowed, according to the Standards for Training Packages 2012. As a result, the qualifications have been revised and

assigned new qualification codes.

Industry validation of the final draft qualifications and skills standards will take place in the second half of 2020. The project will then move into the final stages.

Game Harvesting Auditing Project

Over the past ten years there has been a significant shift towards formalising the training and accreditation requirements for the wild game harvesting sector in Australia. Given game harvesting is a pursuit performed by individual harvesters or property owners, quality control is a significant challenge. Compliance is required from harvest through to processing, including practices to ensure humane harvesting and food safety standards. To support the sustainability of the sector, there are regulations for where and when certain game can be harvested, as well as harvesting quotas. To support high quality, safe and ethically harvested game, skill sets have already been developed to address skills in wild game



harvesting, components of which are now requirements in most state licensing systems.

While the current skill sets assist in setting a standard for individual harvesters, further support is needed for ensuring suitable standards in the transport and audit of game meats. This particularly applies to mobile chillers, called 'depots', that receive and chill game and transport the product to licensed processors. At present, there is a need for nationally recognised training that specifically deals with the internal auditing and the inspection of game field depots. These skills are essential in ensuring biosecurity measures are adhered to and meat is wholesome and safe for human consumption. This is also essential for demonstrating the high quality and safety of Australian products to international markets.

Consultation with industry experts has resulted in the development of skill standards to support the Australian game processing sector to continue to produce high quality, safe products for expanding local and international markets.

Key Outcomes

- The unit of competency AMPG307 Inspect wild game field depot has been developed to describe the skills needed for performing inspections of hygiene, equipment, carcasses, the harvester, records and documentation, and for preparing an inspection report. This new unit will be included as an elective in the Certificate III in Meat Processing (General) and Certificate III in Meat Processing (Quality Assurance). It will also be included in the skill set described below.
- The skill set, AMPSS00066 Wild Game Harvest Internal Auditor Skill Set has been developed to provide individuals with the skills and knowledge required to conduct internal audits in the game sector.

Halal Meat Processing Project

Halal certification is required to access many international halal export markets, providing consumers around the world with peace of mind that they know where meat is coming from, how it has been handled and whether it matches their religious beliefs. While demand for halal meat products is increasing, variation in halal market requirements presents a major challenge to the Australian meat processing industry.

Traditionally, employees working in halal processing have obtained certification from one of a number of Islamic organisations in addition to holding an existing meat processing qualification. However, industry is supporting a move towards a single Australian halal certification system to promote a consistent standard in halal products, helping Australian products reach international markets. As part of this project, industry has led the review and development of skills standards in halal meat processing, to develop one new skill set and two new units of competency. This will support industry as it moves towards a single consistent certification system.

Key Outcomes

- The AMPSS00065 Meat Processing Halal Slaughter Skill Set was developed.
- Two units of competency have been developed for performing animal slaughter in accordance with Halal certification requirements and for overseeing meat processing establishment's Halal compliance.
- The new units will be included as electives in the following qualifications:
 - Certificate III in Meat Processing (Slaughtering)
 - Certificate III in Meat Processing (Quality Assurance)
 - Certificate IV in Meat Processing (Quality Assurance)

Poultry Processing Project

Poultry is a popular choice of meat in Australia, with demand forecast to increase. Annual consumption of chicken meat in Australia has already increased by 33% per capita, over the last ten years. To keep up with demand, automation is increasing throughout the entire processing line. This is having an impact on job roles in the sector, which require updated skills for working with automated processes and equipment.

While some employees in poultry processing may undertake a meat processing qualification, there is no separate qualification for the specific skills needed in this sector. The available training is also not accessible or applicable to much of the workforce. Industry has been consulted throughout this project to develop skills standards in poultry processing, addressing gaps in the availability of endorsed training for this sector. As a result, ten new skill sets and four new units have been developed.

Key Outcomes

- Ten skill sets have been developed:
 - AMPSS00067 Poultry Processing Quality Assurance Skill Set
 - AMPSS00069 Poultry Stunning, Bleeding, Scalding and De-feathering Skill Set
 - AMPSS00070 Poultry Evisceration Skill Set
 - AMPSS00071 Poultry Processing Boning and Filleting Skill Set
 - AMPSS00072 Poultry Further Processing Skill Set
 - AMPSS00073 Poultry Processing Waste Disposal Skill Set
 - AMPSS00074 Poultry Processing Supervisor Skill Set – additional units were added to this skill set to cover important roles undertaken by poultry processing supervisors, including: AMPA3071 Implement a food safety program, AMPCOR401 Manage own work performance, AMPCOR403 Participate in workplace health and safety risk control process, and AMPX423 Supervise new recruits.
 - AMPSS00075 Poultry Pre-processing Skill Set (Gas Stunning) – addresses the industry need for staff to be trained to handle live birds at a processing premises. The original Poultry Pre-processing Skill

Set has been split into two different skill sets, as the requirements for this job task differ depending on whether the premises uses electrical or gas stunning methods.

- AMPSS00068 Poultry Pre-processing Skill Set (Electrical Stunning)
- AMPSS00076 Poultry Processing Initial Chilling Skill Set - addresses the industry identified need to have staff trained in the operation of the initial poultry chilling process.
- The following units of competency were developed and will be included in the Certificate II and III in Meat Processing (Food Services). They were also updated to have more emphasis on workplace health, safety and animal welfare.
 - AMPX316 Monitor product to be sent to rendering
 - AMPX317 Monitor product flow in an automated process
 - AMPP209 Operate the live bird receival process
 - AMPP210 Prepare birds for stunning

Completed Project

The following project was endorsed by the Australian Industry and Skills Committee (AISC) on 13 August 2019. The revised skills standards that were developed as part of this project, are published on training.gov.au and available for delivery by registered training organisations (RTOs).

Visit www.skillsimpact.com.au/completed-projects for further details.

Meat Processing Project

The skills to support systems and processes that protect the quality of meat products from contaminants, pests and food fraud were and embedded in national skills standards, across eight different industry areas.

