



# Final report

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## Verified Sustainable Beef Supply Chain Proof of Concept

### A McDonald's and Meat and Livestock Australia (MLA) Pilot Project

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## Abstract

In an Australian first, McDonald's and MLA partnered in 2019 to pilot a whole of value chain beef sustainability program to enable participating producers, feedlots and processors to demonstrate to customers around the world that Australian beef has been produced sustainably.

The project's purpose was to learn how to verify sustainable beef through the supply chain in a way that is scalable, requires ongoing measurement of performance, assumes third party assurances and delivers credibility and transparency.

As of the end of July 2020, 119,058 head of cattle had been sourced from 34 farms/feedlots approved as meeting the program requirements, and processed through six verified processing facilities. This translates to 33,144,720 kgs of carcass weight.

The project produced many learnings, and feedback was sought from all participating processors and producers, along with the wider industry who were presented with the project and its results, and given the opportunity to discuss the merits of a wider voluntary verified sustainable beef program.

The recommendation at the conclusion of the project is for industry to strongly consider a voluntary sustainability program, taking the learnings from this proof of concept and building and improving on it to develop a wider program for the benefit of the whole industry and supply chain, to build and maintain consumer trust, and grow market share, particularly in higher value markets.

## Executive summary

### Background

In an Australian first, McDonald's and MLA partnered in 2019 to pilot a whole of value chain beef sustainability program to enable participating producers, feedlots and processors to demonstrate to customers around the world that Australian beef has been produced sustainably.

The project's purpose was to learn how to verify sustainable beef through the supply chain in a way that is scalable, requires ongoing measurement of performance, assumes third party assurances and delivers credibility and transparency.

### Objectives

- Facilitate measurement, verification, and alignment of reporting systems as a foundation for the communication to consumers about the sustainability of the beef they are purchasing;
- Help businesses involved understand and inform consumer and customer about sustainable beef production;
- Help drive continuous improvement in the Australian beef industry's care of people, animals and natural resources; and
- Promote the industry's commitment to producing high quality, safe and sustainable beef to the community and customers.

### Methodology

A project team consisting of representation from across the McDonald's supply chain was assembled in February 2019 and worked collaboratively over an 18 month period to achieve the project objectives. The project team included McDonald's Australia, Fulton Marketing Group (raw beef supplier) and finished goods suppliers OSI Group and Tyson Foods Australia. Integrity Systems Company and MLA were also represented.

McDonald's worked with their beef raw material supplier Fulton Market Group (formally Agrifoods Global) and finished goods suppliers Tyson Australia, and TurOsi to coordinate six primary processors and two further processors throughout the proof of concept project. In turn, these processors recruited and coordinated 38 producers who participated in the project, across two phases of the pilot.

### Results/key findings

As of the end of July 2020, 119,058 head of cattle had been sourced from 34 farms/feedlots approved as meeting the program requirements, and processed through six verified processing facilities. This translates to 33,144,720 kgs of carcass weight.

Of this beef raw material, 1.4million kg of beef trimming was supplied to McDonald's beef pattie suppliers in Australia. This raw material sourced through the verified beef sustainability supply chain program produced the equivalent of 31 million 100% beef cheeseburger patties for McDonald's Australian restaurants.

### Benefits to industry

The project produced many learnings, and feedback was sought from all participating processors and producers, along with the wider industry who were presented with the project and its results, and given the opportunity to discuss the merits of a wider voluntary verified sustainable beef program.

Learnings included carefully articulating the value proposition for producers and considering how to increase the value to them to encourage participation; ensuring that continuous improvement is encouraged and facilitated through self-assessment; harnessing the benefits of remote verification; ensuring equivalence with other programs is incorporated to reduce duplication and promote simplicity; looking at ways to simplify the self-assessment tool/functionality and considering how to communicate the program to consumers to maximise its value.

### **Future research and recommendations**

The recommendation at the conclusion of the project is for industry to strongly consider a voluntary sustainability program, taking the learnings from this proof of concept and building and improving on it to develop a wider program for the benefit of the whole industry and supply chain, to build and maintain consumer trust, and grow market share, particularly in higher value markets.

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## 1. Background

Australian beef has a long-standing reputation for being a world-leader in safety and quality. This is recognised by Australian consumers, with a known clean and green product also driving sales into global export markets, where demand is increasing exponentially.

While Covid-19 impacts on red meat markets continue to evolve, more than two in five consumers globally are spending more time cooking and preparing food at home. While approaches to recipe and cuisine experimentation vary, familiarity remains key at this time. Meat & Livestock Australia (MLA) commissioned [consumer research in China](#) which confirms that consumers in a crisis gravitate to brands they trust. Australian beef and lamb have gained that trust over decades of combined industry efforts<sup>1</sup>.

One of the biggest developments in recent years has been the increased demand for greater transparency and ready access to information on how red meat is produced and the paddock to plate experience. Sustainable beef production is about producing beef in a responsible way to reduce the impact on people, animals and the environment. There is growing expectation from consumers that the food they buy is responsibly sourced, including everything from its production and processing through to how it is transported.

McDonald's has a public commitment to source a portion of beef from suppliers participating in sustainability programs in its top 10 markets by 2020, including Australia. Canada was the first market to achieve this goal. McDonald's set this goal to accelerate industry progress on sustainable beef production. MLA is focussed on ensuring that Australian beef continues to gain access to markets due to both our quality and sustainability credentials.

McDonald's is a long-term supporter of Australian agriculture, and as the largest beef purchaser in Australia, is continuing this support via a partnership with MLA to enable the Australian industry to demonstrate beef sustainability from paddock to plate.

In an Australian first, McDonald's and MLA partnered in 2019 to pilot a whole of value chain beef sustainability program to enable participating producers, feedlots and processors to demonstrate to customers around the world that Australian beef has been produced sustainably.

The project was a test to explore how a whole of value chain program could operate. This report details the project, its objectives, processes and learnings, and ultimately, recommendations for consideration by the Integrity Systems Taskforce.

The project was designed to align with the principles of the Australian Beef Sustainability Framework (ABSF). The ABSF is an industry collaboration to meet the expectations of consumers, customers, investors and other stakeholders and to promote the longevity and prosperity of the Australian beef industry. The framework defines sustainable beef production and annually tracks performance over a series of indicators. The six key priority areas that make up the framework are:

- I. animal husbandry techniques
- II. profitability across value chain
- III. balance of tree and grass cover

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<sup>1</sup> <https://www.mla.com.au/news-and-events/industry-news/covid-19-impacts-on-markets14/>



- IV. antimicrobial stewardship
- V. manage climate risk and;
- VI. health and safety of people in our industry<sup>2</sup>.

This project was funded by McDonald's and the MLA Donor Company (MDC), a wholly owned subsidiary of MLA that accelerates innovation across the value chain.

### **1.1 Pilot Purpose: Why verify sustainability in beef production?**

Industries and companies that can engage more effectively with consumers and increase supply chain transparency, will help to build and maintain consumer trust, and grow market share, particularly in higher value markets.

Australian beef has a great story to tell about the work that's already being done on-farm and throughout the supply chain, and the adoption of new methods and practices to produce a great tasting product that reflects consumer values. However, this story must be supported by evidence to clearly demonstrate and verify sustainability and be credible to beef consumers.

The project's purpose was to pilot an approach to verify sustainable beef production through the supply chain in a way that is scalable, requires ongoing measurement of performance, assumes third party assurances and delivers credibility and transparency. The project was a case study and produced learnings which were provided to the Integrity Systems Taskforce as an input to discussions on a voluntary producer wide sustainability program.

## **2. Objectives**

Following is a summary of the documented aims and objectives for the Verified Sustainable Beef Supply Chain Proof of Concept, as identified by the project team:

### **2.1 Aims**

- Facilitate measurement, verification, and alignment of reporting systems as a foundation for the communication to consumers about the sustainability of the beef they are purchasing;
- Help businesses involved understand and inform consumer and customer about sustainable beef production;
- Help drive continuous improvement in the Australian beef industry's care of people, animals and natural resources; and
- Promote the industry's commitment to producing high quality, safe and sustainable beef to the community and customers.

### **2.2 Objectives**

The objectives for the Proof of Concept project were developed by the project team and evolved over the early planning stages. Objectives cover three key areas: the development of an on-farm tool; supply chain alignment and communications about the project.

<sup>2</sup> <https://www.sustainableaustralianbeef.com.au/>

### 2.2.1 On-Farm Tool development objectives

- Develop a simple tool for producers to assess their operation against customer and consumer expectations for sustainably produced beef;
- Develop baselines for producers to use through a guided self-assessment that could if required be verified by a 3rd party;
- Provide a pilot for the measurement, verification, and communication to consumers of sustainable beef to be refined and improved;
- Develop a tool that provides feedback to producers on their performance and ability to benchmark;
- Develop a farmer focussed smart tool that eliminates duplication by recognising compliance of existing certification and customer programs through an equivalence based self-assessment tool.

### 2.2.2 Supply chain alignment objectives

- Review existing transportation, feedlot, processor, industry and grass-fed/pasture compliance programs that align with sustainable beef production and develop an overarching system that brings together the sustainability performance through the whole product supply chain;
- Identify any gaps in these systems to enable sustainability to be demonstrated through the supply chain;
- Enable McDonald's to purchase a portion of its Australian beef supply from verified sustainable beef sources in 2019.

### 2.2.3 Communications objectives

- Build producer capability in understanding customer expectation with regard to sustainable production;
- Implement key aspects of the Australian Beef Sustainability Framework (ASBF) to enable the Australian beef value chain to establish practices that are recognised as sustainable;
- Demonstrate McDonald's leadership in the application of the Australian Beef Sustainability Framework (ASBF) principles and criteria for sustainable beef production;
- To provide a platform for a key customer, beef supply chain, producers and industry to learn together how to promote sustainability credentials to consumers.

## 3. Methodology

### 3.1 Project Management

#### 3.1.1 Project Steering Group

A project team consisting of representation from across the McDonald's supply chain was assembled in February 2019 and worked collaboratively over an 18 month period to achieve the project objectives. The project team included McDonald's Australia, Fulton Marketing Group (raw beef supplier) and finished goods suppliers OSI Group and Tyson Foods Australia. Integrity Systems Company and MLA were also represented.

#### 3.1.2 Pilot participants

McDonald's worked with their beef raw material supplier Fulton Market Group (formally Agrifoods Global) and finished goods suppliers Tyson Australia, and TurOsi to coordinate six primary processors

and two further processors throughout the proof of concept project. In turn, these processors recruited and coordinated 38 producers who participated in the project, across two phases of the pilot.

**3.1.2.1 Packers (Processors)**

- Northern Cooperative Meat Company (NCMC), Casino NSW
- Kilcoy Meats, QLD
- NH Foods Wingham, Kempsey NSW
- Teys, Biloela QLD
- JBS, Brooklyn VIC
- Greenham Gippsland

**3.1.2.2 Grinders (further processors):**

- Tyson Foods Australia, Coominya QLD
- TurOsi, Broadmeadow VIC

**3.1.3 External Contactors**

The project team was supported by a project coordinator and Seftons Pty Ltd provided communications support. AUS-MEAT Limited provided technical assistance and verification services to the project. An additional contract was established with CIBO Labs Pty Ltd to provide producers with assistance on digital vegetation mapping and an opportunity to participate in an aligned demonstrator project of the CIBO Labs offering.

### 3.2 Pilot Project Timeline

Following is an overview of the proof of concept project timeline, from inception through to delivery of the report, which also summarises the frequency of engagement between the project team:

Jan 19	●	First project working group meeting
Feb 19	●	Scope and standard elements agreed
Mar 19	●	Project workshop with AUS-MEAT and processors
Apr 19	●	Draft standards reviewed by project team
May 19	●	Draft standards workshop with processors and producers
May 19	●	Draft processing standards developed
Jun/Jul 19	●	Beef Self-Assessment (BSAT) tool developed
Jul 19	●	Beef Self-Assessment (BSAT) consultation with select producer reference group
Sep/Oct 19	●	Phase 1 verification pilot
Jan 20	●	Update BSAT with program equivalency and question logic
Jan/Feb 20	●	Processor standard equivalency review and self-assessment tool
Mar-Jul 20	●	Finalise processor self-assessment tool including equivalency
July – Aug 20	●	Pilot phase 2 including processor verification
Sep 20	●	Report project results

### 3.3 Stakeholder Engagement

Engaging with key stakeholders was deemed critical to the success of the project. The project team engaged with various stakeholders over the period of the project, particularly in relation to developing the Standards and self-assessment tool, to ensure its applicability to the end user.

Workshops were convened including AUS-MEAT, processors, and producers (grazing and feedlotter) to test and review the Standards and self-assessment tool and at the conclusion of both pilot rounds to gain feedback on the process and other learnings.

An informal standard reference group was established to review the standards and initial BSAT in July 2019. The Standard reference group included representation from MLA research, development and extension, the ABSF and feedlot operations.

Peak industry councils and state farming organisations were briefed on the project by MLA in early 2019, late 2019 and again in early 2020, and at the conclusion of the proof of concept project where project stakeholders were re-engaged in two seminars. The first seminar was for participating producers and processors to provide feedback on the project. The second seminar was for industry, producers, processors and feedlots to learn about the projects execution, results, learnings and discuss its potential as a wider industry program.

### 3.4 Communications

A series of communications materials were developed to support project engagement and articulate the project’s objectives and desired outcomes. Including:

- Key messages
- Fact sheet
- Q&A document
- Producer participation letter

### 3.5 Project Scope

For the Pilot it was decided to cover those key segments of the supply chain where the most resources and time went into raising and handling beef cattle. This scope focus enabled the Pilot to drive towards deeper insights in these critical areas.

#### 3.5.1 In-Pilot scope

Any portion of a participant’s business dedicated to one of the following:

- Breeding and/or grass finishing own cattle
- Grass trading cattle (growing and/or finishing)
- Feedlot operations

The primary and further processing plants that supply beef for McDonald’s beef patties

- Primary processing plants
- Further Processing (McDonald’s- patty plant)

#### 3.5.2 Out of Pilot scope

Any segment of the beef supply chain dedicated to one of the following:

- Auction markets and transportation services.
- Feed.
- Individual economic performance.
- Non-beef aspects of a participant’s business

### 3.6 Program Standards Development

The goal was to take the principles of the Australian Beef Sustainability Framework (ABSF) and see how they could be measured and achieved on-farm and throughout the supply chain. The Framework has four key themes:

- Economic resilience
- Animal welfare
- Environmental stewardship
- People and the community

The following guiding principles were established to guide the development of standards:

#### Guiding Principles for Standards Development

Sustainability Standard Objectives	Australian Beef Sustainability Framework Principles
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	Relevance	Inclusivity	Credibility	Practicality	Transparency
Customer not producer focused	✓				
Commercial viability & ease of use	✓	✓		✓	
Tangible benefit to producers	✓	✓		✓	
Prolific, proactive communication					✓
Encourages continuous improvement	✓		✓		
Outcomes vs prescriptive	✓		✓		
No 'monsters'				✓	
Credibility to all customers			✓		✓
Target market: <ul style="list-style-type: none"> <li>- simple but meaningful,</li> <li>- modular &amp; stepped,</li> <li>- Differentiation.</li> </ul>	✓	✓			
Inclusivity		✓			

The project team used the value chain matrix developed by the Australian framework to develop high level elements and desired outcomes specific for use on farm and elements and desired outcomes specific for processing.

### 3.6.1 On-farm Standards

The project team held their 1<sup>st</sup> workshop in March 2019 with processors and AUS-MEAT to share early scoping of standards, discuss project objectives and share initial themes and elements to agree on guiding principles for further standards development included above.

AUS-MEAT was commissioned to create a first draft of the on-farm sustainability Standards adopting the existing Livestock Production Assurance (LPA) approach and structure<sup>3</sup>, familiar to many beef producers through LPA audits.

ABSF	Agreed Priority Areas	No	Standard	Outcomes
Animal Welfare	Maintain healthy livestock	1	<b>Animal Health and Wellbeing</b>	Livestock health and wellbeing is managed at all times.
	Animal Husbandry Techniques	2	<b>Animal Husbandry</b>	Livestock handling and husbandry activities are undertaken by competent personnel at all times and in a way to minimise the risk of injury, pain and stress.
	Safe livestock transport	3	<b>Transport</b>	Producers take action to ensure cattle are loaded and transported in an appropriate manner to minimise stress and injury.
	Minimize Biosecurity Risk	4	<b>Biosecurity</b>	The risks of the introduction of infectious diseases, parasites and invasive weeds to livestock production properties and the risk of the spread of diseases are
Environment	Balance of Tree and Grass Cover	5	<b>Tree and Grass Balance</b>	Ecosystems including grasslands, forests, wetlands and high conservation value areas are sustainably managed, conserved or protected where required.
	Minimize Nutrient & Sediment Loss	6	<b>Soil Health</b>	Soil health is maintained or improved.
	Efficient Use of Water	7	<b>Water</b>	Water resources (including quality and quantity), are responsibly and efficiently managed to support landscape function ecological services.

<sup>3</sup> <https://www.integritysystems.com.au/on-farm-assurance/livestock-product-assurance/>

	Manage Climate Change Risk	8	<b>Climate Resilience</b>	Preparedness for the management of extreme climatic condition including drought, fire and flood.
	Climate Change Adaptation and Preparedness	9	<b>Carbon Management</b>	A carbon management strategy is in place for an improved carbon footprint.
<b>Community</b>	Health & Safety of People in the Industry	10	<b>Workplace Health Human Rights</b>	A demonstrated approach to managing the health, human rights, wellbeing and safety of all owners, employees and visitors to the Operation.
	Antimicrobial Stewardship	11	<b>Antimicrobial Usage</b>	Responsible use of antibiotics in livestock is undertaken.
<b>Economic Resilience</b>	Profitability across Value Chain	12	<b>Animal Management &amp; Productivity</b>	Management regularly reviews and benchmarks their livestock management and productivity.

The structure of the initial draft Standards was then adapted from the hierarchical model of the *Canadian Roundtable for Sustainable Beef Sustainable Beef Processing Standard*<sup>4</sup> (CRSB) - *Sustainable Beef Production Standard* (December 2017).

This structure included a defined Outcome for each Element along with a tier of three (3) achievement ratings; namely Base Requirement, Innovation and Best Practice. Each achievement area included a summary description of the area plus a number of defined *Performance Indicators*. This was later reduced to two tiers (2):

**Achievement Level** - minimum requirements that are required to be met by a business owner/producer to achieve recognition as a program participant.

**Best Practice Level** – represents management activities that are over and above the baseline requirements and forms a basis through which a business owner/producer can demonstrate their management practices exceed minimum standards.

The Standards were put through a rigorous process of refinement by the project steering team prior to being workshopped over two days on 30-31 May 2019 by a representative group of producers, feedlotters and processors identified to participate in the program. Resulting draft standards were used to commence development of the Beef Self-assessment tool (BSAT). Further tweaks were made to the standards throughout the project as identified. Final draft standards are attached in Appendix One.

### 3.6.2 Beef Self-Assessment Tool (BSAT)

Based on producer feedback during the May workshop, a practical on-farm/feedlot self-assessment tool was developed to assess performance of operations to the standards, versus a traditional audit structure. The self-assessment tool became the primary interface with the program for participating producers.

The tool was designed with a series of questions consisting of multiple choice and open ended questions designed to collect information related to on-farm practices and / or evidence of desired outcomes. The tool was developed with useful links to help lead producers to find more information

<sup>4</sup> <https://www.crsbcertified.ca/assets/Uploads/Framework-Documents/CRSB-Sustainable-Beef-Production-Standard-v1.0.pdf>

about any element of the Standards. In some areas the tool was linked to templates and resources that could be utilised.

The self-assessment questions were developed by the project team based on the standards and feedback was sort through an informal standards reference group which included representation from MLA research and development, the ABSF and feedlot operations. The tool was then built by AUS-MEAT in Microsoft Excel.

Producers sent completed BSATs to AUS-MEAT via email for the purpose of validating their response to specific questions. For multiple questions, producers were required to provide supporting documents. A checklist was developed to assist producers in gathering relevant documents ahead of completion the self-assessment. Other more sophisticated platforms such as I-Auditor, Muddy Boots, Formatize and Savy were considered but due to the agreed timeframes of the proof of concept project, it was not practical to proceed with these options.

The on-farm BSAT was further refined throughout the project following feedback and learnings from the pilot activity. Refinement work included the incorporation of a number of “smart” functions which filtered the number of questions requiring a response based on:

- Type of production system e.g. breeder v’s feedlot
- Answers to previous questions
- Producer participation in a range of well-known beef industry standards (equivalence).

A goal of the self-assessment was to recognise that there are multiple ways for a farm or a feedlot to meet an outcome in the Standards. Multiple choice options were used where common practices were known, with options where relevant to enable a producer to provide detail on other actions being taken.

### 3.6.3 On-farm Program Equivalence

A detailed equivalency framework was created (using the proof of concept Standards), and formed the reference point for determination of equivalence through the BSAT.

The programs assessed as part of the producer equivalency framework and incorporated within the BSAT are as follows:

1. LPA Livestock Production Assurance Program
2. LPA-QA LPA On-Fam Quality Assurance
3. NFAS National Feedlot Accreditation Scheme
4. PCAS Pasturefed Cattle Assurance System
5. EUCAS European Union Cattle Accreditation Scheme
6. GAP Global Animal Partnership
7. Coles Graze Coles Australia Grass-Fed Cattle Assurance Scheme
8. Greenham NE Greenham NEVER EVER Beef Program

In setting up a property self-assessment, a producer could identify other programs they were a part of, and the self-assessment tool would automatically mark relevant program requirements met.

#### **Example:**

For a National Feedlot accredited (NFAS) accredited feedlot, the beef self-assessment tool (BSAT) is approximately halved based on recognition of its accreditation requirements.



A hard copy of the final producer BSAT (V11) as utilised for the second project phase is attached (Appendix two).

### 3.6.4 Processor Standards

A sub-project team was established to develop a related set of Sustainability Standards to be used by processors and further processors. The sub team took a similar approach to standard development as per the on farm standards. The ASBF value chain mapping was used to identify priority areas relevant to processing.

In comparison to the on-farm Standards, the processing Standards were relatively prescriptive due to existing quality assurance programs. The format of the processor Standards is similar to the format of the on-farm Standards, and performance indicators were linked to the on-farm standards wherever possible. Final processor standards can be reviewed in Appendix three.

### 3.6.5 Processor Self-Assessment Tool (PSAT)

The aim of the proof of concept project was to simplify and reduce the need for duplication by processors as well as producers. The project team consulted with the processors and gathered key information via a questionnaire, then enlisted AUS-MEAT's help to map equivalence using the Standards. This became the basis for the processing self-assessment tool (PSAT), with the functional ability within the questionnaire to filter out unnecessary questions for each processor, depending on which equivalence programs they participated in. The PSAT can be reviewed in Appendix four.

Following standards were mapped for equivalence:

- |        |           |  |
|--------|-----------|--|
| (i)    | NAMI      | North American Meat Institute              |
| (ii)   | ISO 14001 | ISO Environmental Standard (14001)         |
| (iii)  | AAWCS     | Aust, Animal Welfare Certification Scheme  |
| (iv)   | BRC       | GFSI Standard                              |
| (v)    | SQF       | GFSI Standard                              |
| (vi)   | SEDEX     | Ethical Standard                           |
| (vii)  | SWA       | McDonald's Social workplace Accountability |
| (viii) | McD AW    | McDonald's Animal Health and Welfare Audit |

### 3.6.6 Verification

AUS-MEAT were contracted to complete verification of the on-farm/feedlot sustainability program BSAT responses. Producers first completed the BSAT and submitted their response to AUS-MEAT with supporting evidence. For the first phase pilot in September 2019, all producers completed the full self-assessment and AUS-MEAT completed an onsite audit. During the second pilot in 2020, all producers were asked to complete the self-assessment and submit to AUS-MEAT with supporting evidence. A sample group of producers were randomly selected for an onsite audit to verify self-assessment responses based on i-seal assurance code of good practice v2<sup>5</sup>.

Processor self-assessments were submitted to AUS-MEAT for review with accompanying supporting evidence. AUS-MEAT conducted onsite audits to verify BSAT responses at all processing facilities.

<sup>5</sup> [www.iseal.org](http://www.iseal.org)

These were in turn reviewed by the nominated AUS-MEAT reviewer. As per the process for beef producers, where necessary the reviewer sought clarification of information as required. A sample of processors were selected for an on-site visit to verify the responses and associated supporting evidence.

### **3.6.7 Remote Verification pilot projects**

Remote verification is an opportunity to leverage technology and objective data to demonstrate an outcome is being achieved. The pilot project established two test project to focus on the use of remote verification and objective evidence to assess simplification of data collection and verification processes. Remote verification is more efficient and less intrusive than an audit approach, as well as being credible and evidence based.

#### *MyFarm*

CIBO Labs was contracted to the pilot project to provide property boundary and vegetation mapping services to producers completing the BSAT. Producers that participate in the BSAT pilot project, also had the opportunity to participate in a 12month 'MyFarm' Technology Demonstrator project. The Demonstrator project allows producers to put in place key technologies for producers to support improved on-farm management (for example, biosecurity mapping, vegetation mapping, groundcover / feed on offer) and enable producers to have input to the ongoing development of tools to meet emerging management, regulatory, market and business needs.

In pilot two, the MyFarm tool was available for participating producers to use for relevant sections of the BSAT. The MyFarm project continues to be developed outside of the proof of concept project as a standalone program.

#### *Carbon Tool (Integrity Environment & Agriculture)*

In a separate but aligned project, Integrity Environment & Agriculture was engaged to assess different methodologies for carbon foot-printing. For producers carbon foot-printing is costly and requires extensive data inputs. This project aimed to identify the key drivers of a livestock enterprise carbon foot print and assess the minimum data input requirements from producers to gain a livestock enterprise carbon footprint that had a minimum threshold of accuracy. Through this project a list of key drivers of carbon output was identified and developed into an online tool for producers to calculate a simple carbon balance. The future plans for the project are to analyse its use in situ (on farm) to fully explore its use and benefits, with producers from the proof of concept project, and compare the results to a full carbon analysis.

The carbon tool was available for pilot two participants to use as part of the BSAT: [Carbon Tool](#). This section of the BSAT was agreed to be identified as developing. Producers that did not want to provide data for a carbon balance were not prevented from achieving program status.

### **3.6.8 Chain of Custody**

Chain of custody refers to the process used to track cattle from the farms where they are born through the beef supply chain to the processing plants where they are harvested.

The initial goal of the program was for a fully verified supply chain from paddock to plate that would include cattle sourced from verified operations from place of birth. In reality with the small sample size of operations participating in the pilot, this was not always feasible. For the purpose of the proof of concept program, cattle were required to spend a minimum of 42 days on the verified

sustainable property. This time period is consistent with Livestock Production Assurance (LPA) quality assurance. A small sample of cattle were traced back to birth on operations verified through the program. See Appendix Three for more information on the Mass Balance approach used. A voluntary supplier declaration and the Cattle National Vendor Declarations (NVDs) were used for the purpose of the project to track cattle from participating properties through processing.

## **4. Results**

### **4.1 Supply of Verified Beef**

As of the end of July 2020, 119,058 head of cattle had been sourced from 34 farms/feedlots approved as meeting program requirements, and processed through 6 verified processing facilities. This translates to 33,144,720 kilograms of carcass weight.

Of this beef raw material, 1.4 million kilograms of beef trimming was supplied to McDonald's Beef Pattie suppliers in Australia also verified through the Pilot on a mass balance basis (see Appendix for definition of Mass Balance). This raw material sourced through the verified beef sustainability supply chain program produced the equivalent of 31 million 100% beef cheeseburger patties for McDonald's Australian restaurants.

In addition, 0.6million kilograms of beef raw material sourced from farms participating in the beef sustainability pilot program was exported to a further 13 McDonald's beef patty production facilities across 7 countries including the United Arab Emirates, China, Japan, the Philippines, Taiwan, South Korea and four the United States of America. This volume of beef would produce an additional 14 million 100% beef cheeseburger patties.

752 out of the 119,058 head of Cattle sourced could be traced through this project for whole of life (WLT) with the balance traced from the last farm or feedlot.

The proof of concept project has enabled:

- Collaborative engagement across multiple stakeholders to develop a whole of value chain beef sustainability program that aligns to the Australian Beef Sustainability framework.
- Develop and road test a credible third party verification process that seeks to recognize equivalence and is realistic to be scalable for broader adoption
- Track the chain of custody of cattle across verified operations at each part of the supply chain to enable reporting of the portion of verified beef used in a finished product supplied to a consumer.

### **4.2 Supported and accelerated Industry led Beef Sustainability**

To accelerate the industry's efforts, the Pilot:

- Created a practical sustainability verification model for use within a supply chain
- Assessed the value and ease of leveraging existing programs and industry resources to demonstrate alignment with the Australian Beef Sustainability framework.

- Tested a program that if scaled could be inclusive of all participants regardless of their size, sector or geography
- Generated momentum and interest through stakeholder engagement and broad industry participation.

## 5 Conclusion

### 5.1 Learnings

#### 5.1.1 Program Standards and Self-Assessment tool

- Establish credible and acceptable minimum baseline standards, guided by ABSF and achievement criteria. In establishing an industry wide baseline standard, requirement of supply chains should be considered. A key challenge will be establishing a whole of industry baseline standard considering the variation in agro-ecological zones. Extensive industry and supply chain consultation is required.
- Focus on desired outcomes rather than processes or practices to demonstrate sustainability. Only where desired outcomes cannot be verified or specific indicators must be demonstrated should processes and practices be measured. Focusing on outcomes will reduce compliance costs and burden for producers.
- A pathway for continuous improvement linked to productivity and productivity should be provided if a self-assessment tool it rolled out as a program component.
- In the pilot program, commercial pull through (McDonald's) encouraged producers to self-select and participate in the program. For engagement in a voluntary industry program, a strong value proposition for producers is needed.

#### 5.1.2 Verification of compliance to the Standards – producers

- The on-site audits conducted demonstrated that what was documented in the BSAT (self-assessment) accurately reflect the findings identified as part of the on-site property visit with no deviations detected.
- In terms of the sites involved with the remote phone interviews it also appeared that the sites had sufficient systems in place to substantiate the responses and information provided with the BSAT. Notwithstanding it is important to note that this remote activity focused on areas for which some additional clarification was required and was not conducted as a full remote audit verification activity.
- There is opportunity to investigate remote technologies and leverage existing data sets and programs to demonstrate sustainability outcomes and reduce the cost and manual completion of program requirements. This has applicability for supply chain specific and / or an industry owned system.
- From an industry perspective multiple commercial and supply chain sustainability systems / program increases cost and complexity for producers to meet program requirements. Any industry system must recognise or accounting for equivalence of commercially owned programs.

#### 5.1.3 Processors

- In fact, all primary processing sites held certification in British Retail Consortium (BRC) and Australian Livestock Processing Industry Animal Welfare Certification System (AAWCS) which

eliminated 20 of the total of 27 questions within the processor BSAT, resulting in a maximum of seven questions requiring completion.

- In addition, for the two further processing sites, given that the animal welfare and livestock handling requirements of the processor Standard are not directly relevant, a further three questions did not require attention (i.e. performance indicators 1.4, 2.1 and 2.2). Therefore, for these two sites, only four questions of the processor BSAT had to be completed.

## 5.2 Key findings

Our small scale pilot confirmed that cattle on participating farms and processes through participating processing facilities were being raised and processed with responsible and sustainable outcomes, with a widespread commitment to continuous improvement.

## 5.3 Benefits to industry

Workshops were held with participating producers and processors, as well as industry leaders (peak councils, processors, producers and other supply chain representatives) at the conclusion of the project. At these workshops, participants were provided with an overview of the project including results, and asked to provide feedback on the project (participating producers and processors) or their views on the merits of a voluntary sustainability program (industry leaders).

Below are some highlights from the workshops:

### 5.3.1 Participating producers and processors

- The project was valuable and is worthwhile as a long-term initiative, however they recognised they are a specialised and segmented group.
- The value supply chain was broadly supportive of a sustainability program.
- The program was simplistic and aligned well with other initiatives.
- Further development required on the platform tool.
- See it as about access to markets & selling more kg beef, not premiums.
- On farm benefits are not apparent yet, but consumers and shareholders of beef customers will drive change.
- Program needs to move the lower end and extend the top end.
- Recognising equivalency of existing programs is important.
- Existing systems, datasets and technology should be leveraged to demonstrate sustainability.
- Producers that participated were early adopters – how would it go if it was eventually pitched to the middle of the curve?
- There needs to be more value back to producers – if you meet achievement level, how can you improve? What support and training could be available? There was a sense that more immediate feedback could have been provided here/should if an ongoing program goes forward.
- Extension elements like MyFarm and the carbon tool were seen to have value but the execution needs work.
- How can this program be used to demonstrate supply chain sustainability to consumers? Can it effect decision making? Mixed feedback on whether producers considered this or were more concerned with feedback themselves to improve and evolve.

- Questions around clearing of vegetation were a little threatening as this is a sensitive issue.

### 5.3.2 Industry Leaders

- Overall support for a voluntary sustainability program – but there was discussion around if sustainability is a ‘nice to have’ or actually becoming non-negotiable.
- Voluntary was generally the preference and seen as important, but pros and cons of this were noted e.g. volume of uptake
- Voluntary means different things to customers and consumers than to industry – needs careful management and communication.
- Industry’s chance to get on the front foot with sustainability.
- Could be a vehicle to tell the verified story - whole of industry stewardship.
- Should it be part of LPA, or just use LPA systems and sit separately? LPA is about food safety and this is sustainability.
- The value proposition to producers is critical and will require sophisticated communications – suggested to be market access plus long-term value return.
- Need to articulate the driver or critical mass, benefit cost and value chain benefits.
- Look for opportunities to reduce friction – not adding more burden to producers unnecessarily.
- Need for a balance to be struck for participation and incentivising people to take part – needs a significant market share to be credible.
- If it is a long-term access requirement then we need a uniform program for all to tap into.
- Will standardisation stipulate innovation?
- Industry leadership is a critical success factor but exactly who this is needs to be defined.
- Needs to link to other verification systems/how does it complement others?
- There are other corporates working in the sustainability verification space – need to consider a unified approach and also learn what benefits they are seeing.

## 6 Future research and recommendations

The recommendation at the conclusion of the project is for industry to strongly consider a voluntary sustainability program, taking the learnings from this proof of concept and building and improving on it to develop a wider program for the benefit of the whole industry and supply chain, to build and maintain consumer trust, and grow market share, particularly in higher value markets.

## 7 Appendix (Confidential)

### 7.1 Standards

### 7.2 BSAT

### 7.3 Mass Balance

### 7.4 PSAT

