

Traceability quick start guide



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AGRICULTURE VICTORIA



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Getting started with traceability

This guide is a practical starting point for anyone wanting to increase traceability measures in their business. Users of the guide can follow a five-step process to help understand their traceability requirements.

It's important to understand the benefits a traceability system can offer a business. The chosen system must be suitable, connect along the supply chain and grow with the business.

This quick start guide will help users consider



How a traceability system may fit into current business practices.



Whether specialised technology is necessary, or if current systems can continue to be used.



What information a potential traceability service provider requires about their business and services.

A business can use traceability without specialised technology. Completing this guide may confirm a business already has the requirements of a traceability system. The business may need help with training or extra connectivity to get the system working across the supply chain.

Who is this quick start guide for?

This guide helps businesses in the agricultural supply chain understand which traceability system is suitable. Using a practical, five-step process, businesses will be clear about:

- what the traceability system can do for the business
- how it needs to fit into current business operations
- the capabilities and resources already available in the business
- the budget and
- expected return on investment – because a new system needs to provide a financial benefit.



What is traceability?

Traceability is the ability to share information about, and follow the movement of, a product through all or part of its supply chain, across the stages of production, processing and distribution.



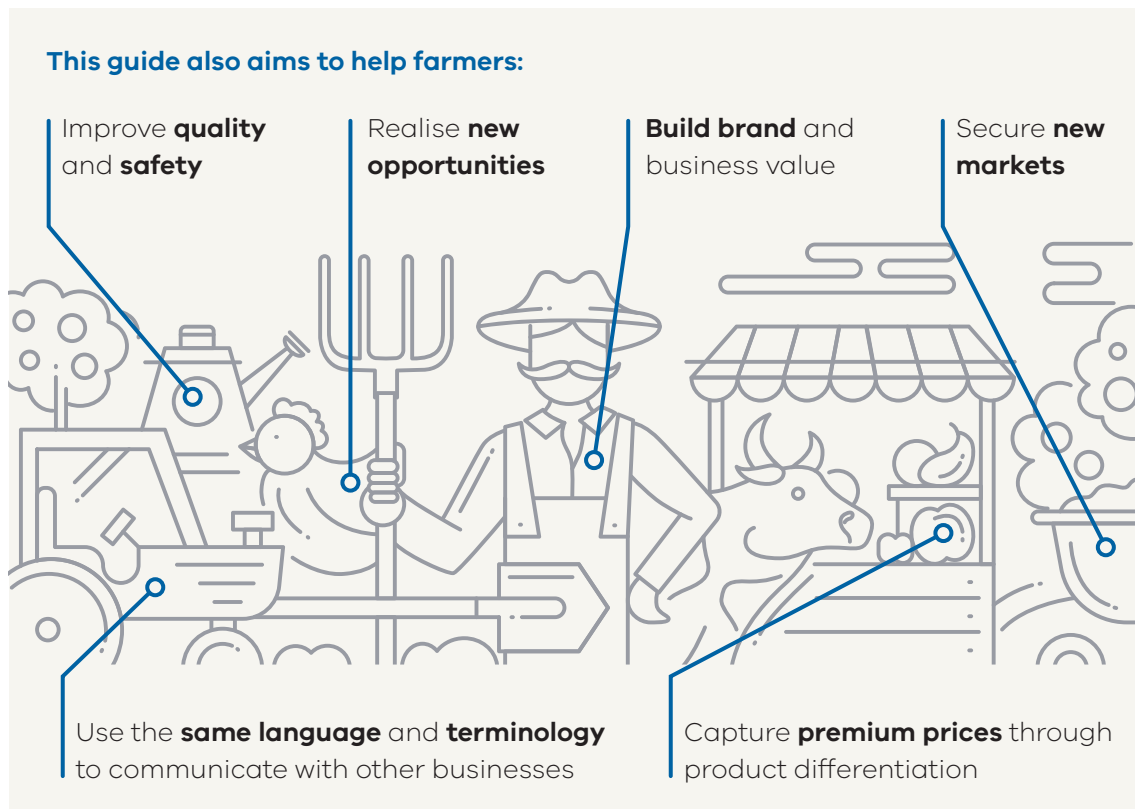
What is a traceability system?

A traceability system can range from pen-and-paper to an electronic supply chain business management tool. The system must work for the business, connect with supply chain partners and be fit-for-purpose.



Why is traceability important?

Businesses with limited or weak traceability can experience greater operational and financial risks. This guide will help producers and businesses along the supply chain understand and take practical steps to manage this risk.



Agricultural supply chains are complex, with many businesses being part of a product's journey from farm to consumer. This includes fertiliser and chemical producers supplying products for crops and livestock. And continues through the supply chain to freight, logistics, food processing and storage.

There is value in working together to use a common language and system for traceability. This is why Agriculture Victoria recommends a national approach across the agricultural supply chains.

Traceability can help businesses remain competitive and meet increasing consumer demands by:

- connecting with technology to provide systems that share information along the supply chain
- keeping track of changing customer needs and market trends
- building consumer trust and confirming product claims, such as sustainably sourced produce.

Global Traceability requirements are continuously evolving and are important considerations for exporters. See the traceability requirements in the new *United States' Food Safety Modernisation Act* as a leading example www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-requirements-additional-traceability-records-certain-foods



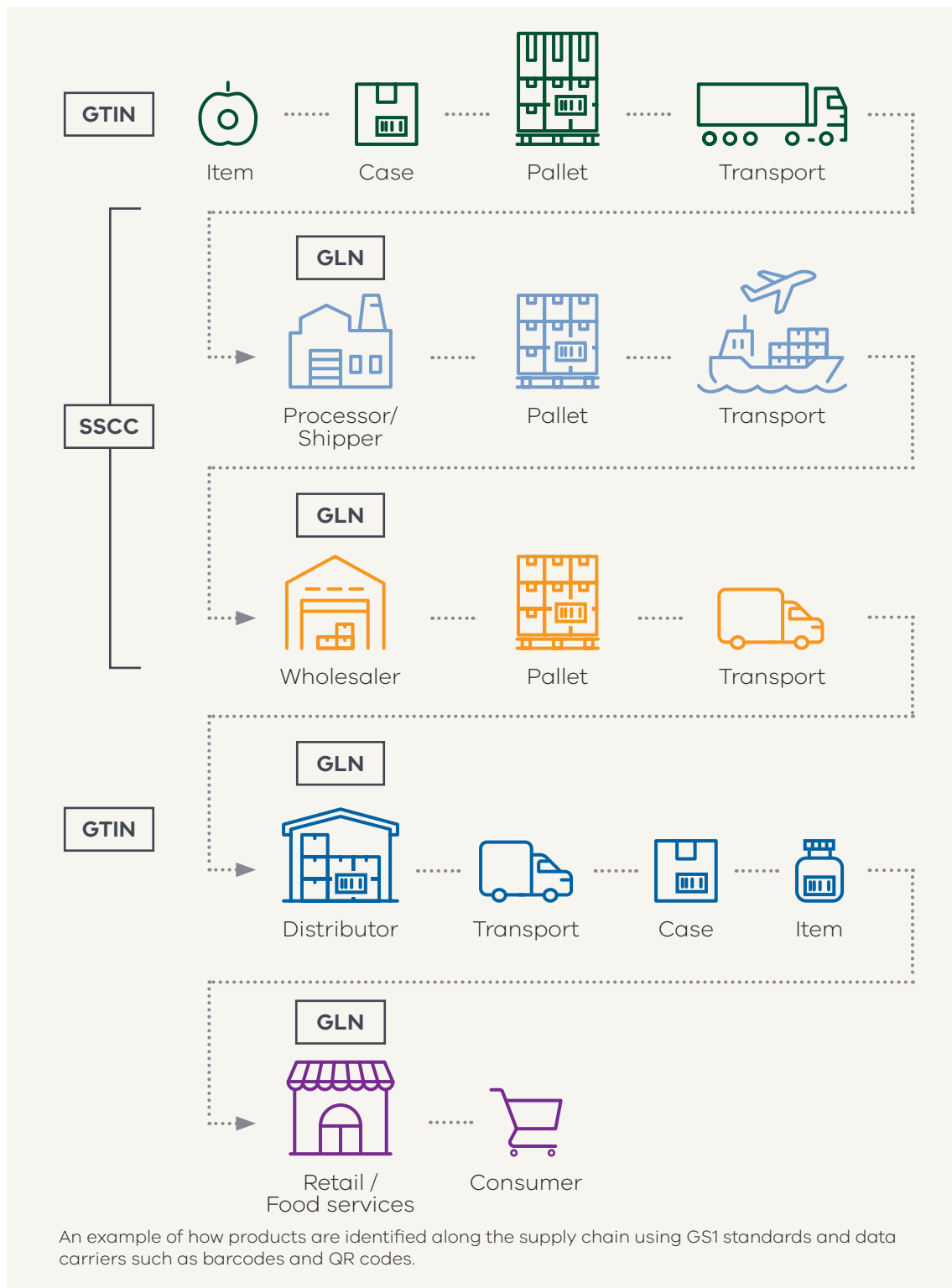
Scan to view

How can products be identified along the supply chain?

Products can be physically identified using a data carrier such as a barcode or QR code.

The example below shows how GS1 standards are identified along the supply chain using:

- Global Location Number (GLN) to identify a business' location.
- Global Trade Item Number (GTIN) to identify a product.
- Serial Shipping Container Code (SSCC) to identify transit information.





STEP 1: Decide where to start

What two key drivers of traceability are important to your business?

The need for traceability can be explained using six key drivers, across three different categories.

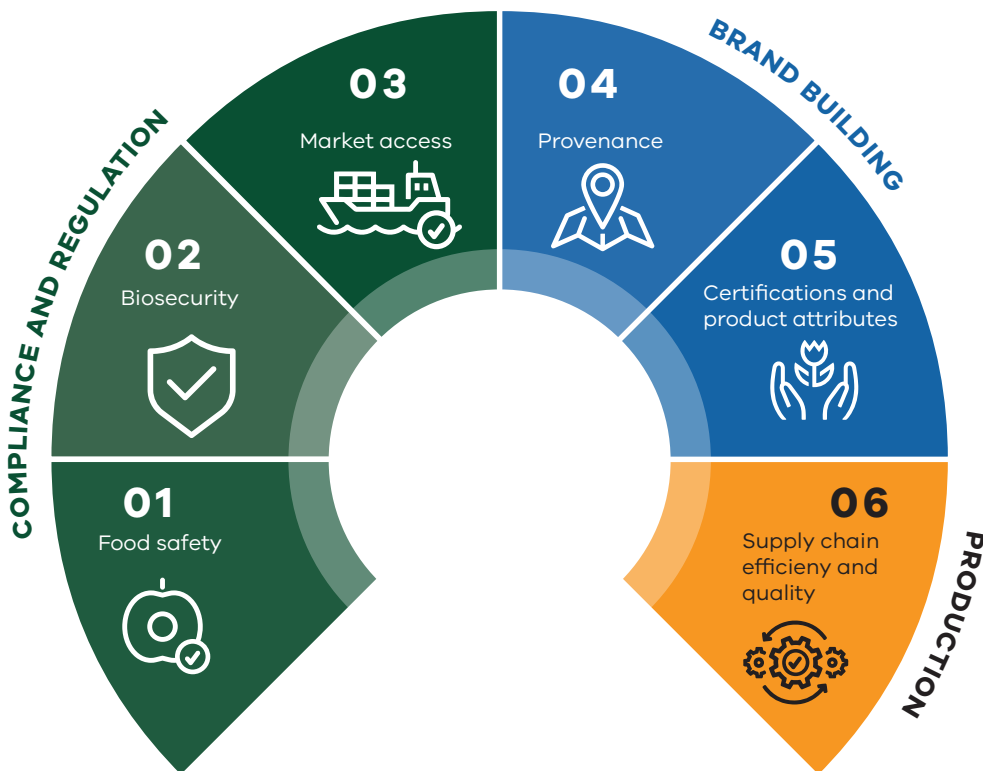
The six key drivers of traceability

The need for traceability in a business can be explained using six key drivers:

1. food safety
2. biosecurity
3. market access
4. provenance
5. certifications and product attributes and
6. supply chain efficiency and quality.

These drivers are categorised as:

- compliance and regulation
- brand building, and
- production.



The need for traceability can be explained using six key drivers, across three different categories.



Not sure where to start?

To help decide where to start, it's important to understand:

- **Where is your business heading?**
 - If you are looking to expand into new markets within the next 5-10 years, market access may be a key driver.
- **Are you currently using traceability in your business?**
 - You may already be using traceability to track and manage stock or maintain food safety compliance.
- **What two key drivers of traceability would you like to focus on, and why?**
 - Traceability can help businesses communicate along the supply chain. It can track the location and condition of a product on its journey or confirm a product is genuine.

TIP

Consider everything you would like the traceability system to do. Then start the process by focusing on one or two key drivers of traceability at a time. Remember:

- Be clear about why you are using traceability.
- Talk to your business partners and supply chain customers about your traceability needs.
- Make sure any systems you use are interoperable. Interoperable systems can connect with other businesses in your supply chain.



STEP 2: Decide what to trace

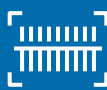
Globally recognised data standards, such as GS1, play an important role in this step and can be a good place to start. Standards use a common language to help identify locations and products along the supply chain from farm to consumer.

Standards provide a globally recognised, unique identification number that includes



Business location

GLN: Global Location Number



Product identification

GTIN: Global Trade Item Number



Transit information

SSCC: Serial Shipping Container Code



The World Trade Organization **Standards Toolkit for Cross-border Paperless Trade** nominates GS1 identifiers as the traceability standards of choice. GS1 standards are administered by over 150 countries globally, including Australia. Global standards help businesses speak the same language and align information across industries.



Scan to view

STEP
2



Not sure where to start?

To help decide what to trace and how it will be identified, it's important to understand:

- **How your product is produced and then sold. Is your product:**
 - sold as an individual item, for example, individual apples?
 - sold as a batch, for example, a punnet or a box of apples?
 - transformed into something else along the supply chain, for example, apples that are juiced?
- **Is it important to identify individual products within your business?**
 - If there was a recall, would you be able to locate all products affected by the event?
- **Who do you need to connect and share information with along the supply chain?**
 - How will they scan the label? For example with a smart phone? Or do they require more extensive system integration?

TIP

- Consider why you're using traceability. Group products into individual items or batches and review how they travel along the supply chain. Remember:
 - Think about how your business would respond during a product recall. The larger the batch, the more significant the amount of product recalled.
 - Talk to your supply chain partners to understand their needs and if they use GS1 or other standards and systems.
- Using globally recognised standards can help share information between business systems. The starting point (foundation) of the standards needs to be the same for every business. They can then use their own system or specialised software to interact with and review data collected using the standards.
- A system can still be compatible with GS1 standards if it's only used for internal food safety or stock control purposes. If the system needs to connect with supply chain partners in the future, the linking process will be easier as the businesses will be using these standards.



STEP 3: Decide how and where to collect data



**How will information
be collected
and recorded?**

Supply chain traceability

Supply chain traceability means a product can be identified:

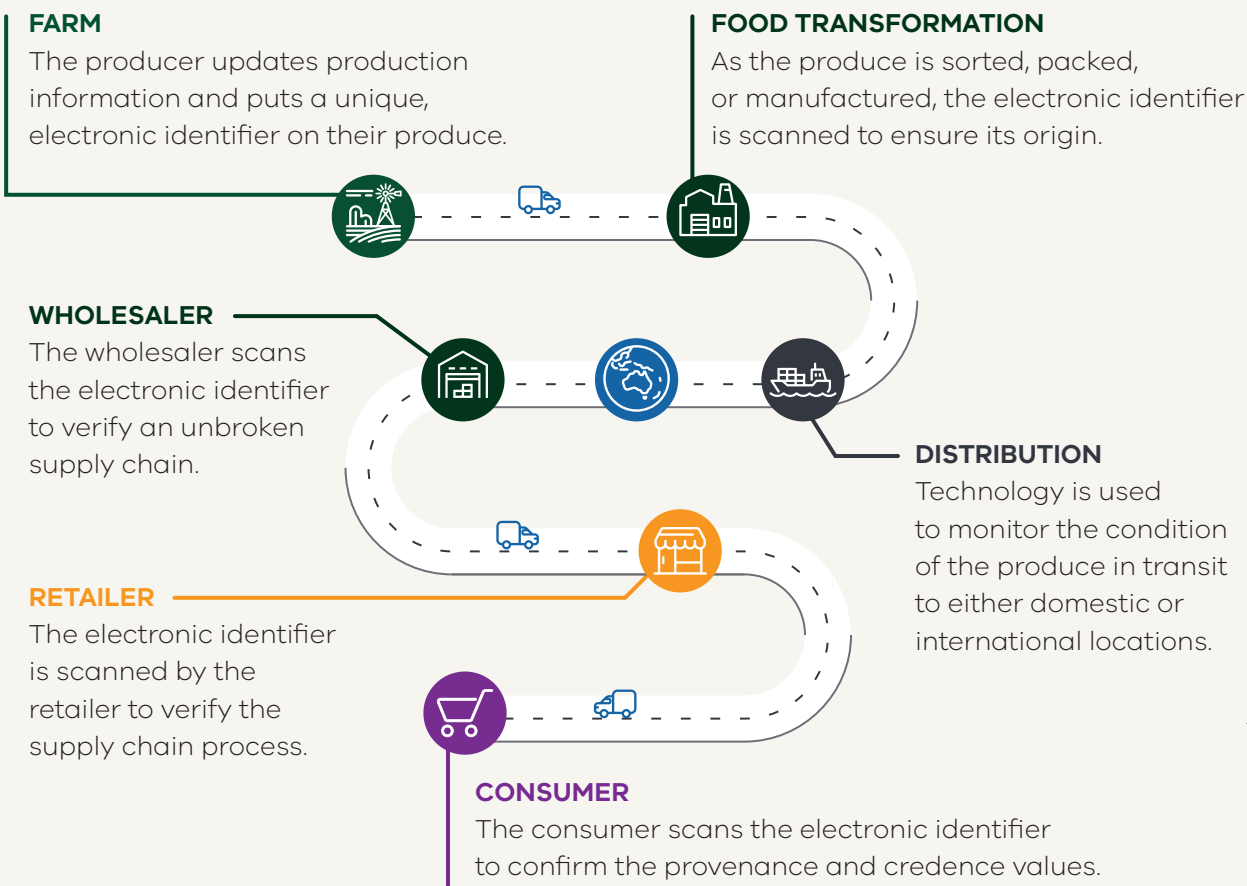
- within a business and
- across the supply chain.



**What information
needs to be shared
about your product?**

Information can also be collected and shared about a product as it moves through the supply chain. This information includes, but is not limited to:

- physical location of the product
- time spent in each location
- temperature of the product in the box or packaging
- details about the product variety
- marketing features of the product and
- feedback from supply chain partners and consumers.



STEP
3

Effective traceability can provide information about a product's journey from the farm to the end consumer.



Not sure where to start?

To help decide how and where to collect data, it's important to understand:

- **What key drivers of traceability are important to your business?**
 - Review your response from Step 1.
- **What do you and your supply chain partners need to know about the product?**
 - It's important to know what data you need to receive about the product or batch being tracked and why.
 - For example, knowing spray application information for fresh produce may help a distributor decide where to send certain produce, especially to international markets that have chemical residue requirements.
- **What systems do your supply chain partners use to log and trace a product as it enters their business?**
 - The wholesaler may use a barcode scanning system to record stock as it's received and then dispatched. For example, if all partners are using GS1 data standards, this may simplify the transfer of information between systems, potentially reducing errors and the time taken for manual data entry.

TIP

Consider the systems you currently use. It's likely you're capturing data in your business and from supply chain partners in some way. Remember:

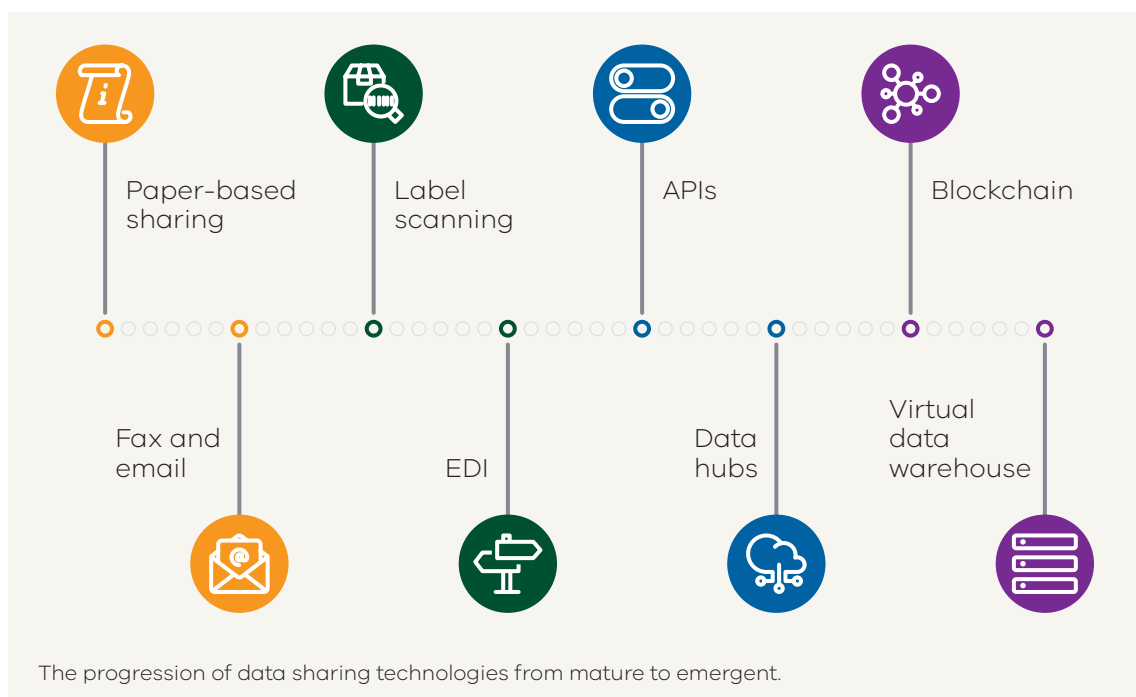
- Knowing the key points in your supply chain can help identify the information needed to produce the product and get it to the customer and consumer.
- A visual product and process flowchart may help highlight data collected at each point along the supply chain.



STEP 4: Decide how to share the data

Can the data be shared easily?

Data sharing is the ability to share data with many applications or users. The way data is shared will be determined by the size and scale of the business. It will also depend on how much time and money the business is able to invest in a system and potential training.



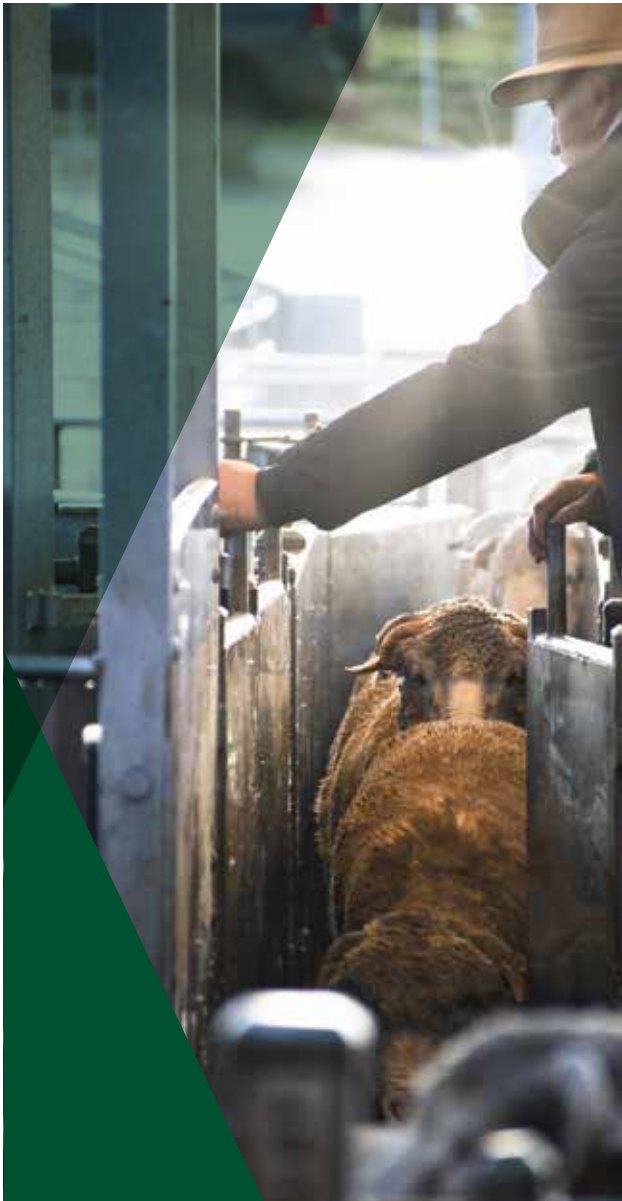


Not sure where to start?

To help decide how to share data, it's important to understand how the system interacts to and 'talks' with other systems.

Take into consideration your needs for supply chain:

- **Integration**
 - Does the system need to share data with businesses using the same program?
- **Interoperability**
 - Does the system need to share data with businesses using a different program?
- **Multifunctionality**
 - Does the system need to combine a variety of data about the product that can serve multiple functions in the supply chain?
 - For example, a QR code that can store and retrieve – point of sale information, marketing content, regulatory certification and quality control guidelines.



TIP

Consider the systems you currently use. It's likely you're sharing data in your business and with supply chain partners in some way. Remember:

- Look at the data you're already sharing with supply chain partners and consumers and the information fed back to you.
- What value do you take from this information and how can it be leveraged?
- Adopting a new system can be an investment in time and resources. It's important to train the staff using the system to make sure it is being used to its full potential.
- Additional considerations to discuss with your service provider include:
 - where will the data be stored?
 - who will have access to the data?

STEP
4








STEP 5: Create a business case

Why is traceability important to your business?

An effective business case highlights the benefits of what is being proposed. The information included will address the costs associated and the expected return on investment. It will also help share the value of implementing traceability in the business and along the supply chain.

Business Case

1	Provide context	Why is investigating in traceability important to the business?	
2	What will change?	How will the changes take place and how long is the process?	
3	Highlight benefits	How will the business benefit from investing in traceability?	
4	What will it cost?	Consider the financial, time and people requirements	
5	Commitment	Who is responsible for what and can it be achieved?	



Not sure where to start?

To help prepare a business case, it's important to understand:

- **What key drivers of traceability are important to your business?**
 - Review your response from Step 1.
- **What value will a traceability system bring for the business?**
 - Successful implementation requires involvement by everyone in the business, this includes staff training.
- **The cost, benefit and expected return on investment (ROI) to implement a traceability system in the business.**
 - Use the [Agriculture Victoria Cost-benefit analysis tool](#) to help calculate expected ROI by year.



Scan to view the cost-benefit analysis tool

TIP

A business case doesn't need to be complicated. The purpose is to share enough information about the value of traceability in your business, to help a decision maker take action. Remember:

- Do your research, following the quick start guide steps will provide the basis for a business case.
- Identify opportunities for the investment – are there internal business efficiencies or external factors that will contribute to the ROI?

The business case may be shared with an investor or financial institution.

STEP
5



Resources and tools

Traceability systems range from pen-and-paper to an electronic supply chain business management system. The system chosen must work for the business, connect with supply chain partners and be fit-for-purpose.

Decision trees

A decision tree is a series of questions and answers to help understand where you are in your traceability journey.

The system you choose must fit within your current business model. Using a process like this quick start guide will help identify areas of business improvement to save time, money and labour.

Remember:

- Use the decision trees to help understand your needs from a traceability system.
- Knowing your traceability system needs will help technology providers assist with their services.



Ask questions – speak to your supply chain partners and industry colleagues about how they use traceability in their businesses.

DECISION TREE 1

Do you currently have a traceability system in your business?

If you are unsure whether you're using a traceability system, start here.

<https://traceabilitytrees.onrender.com/>

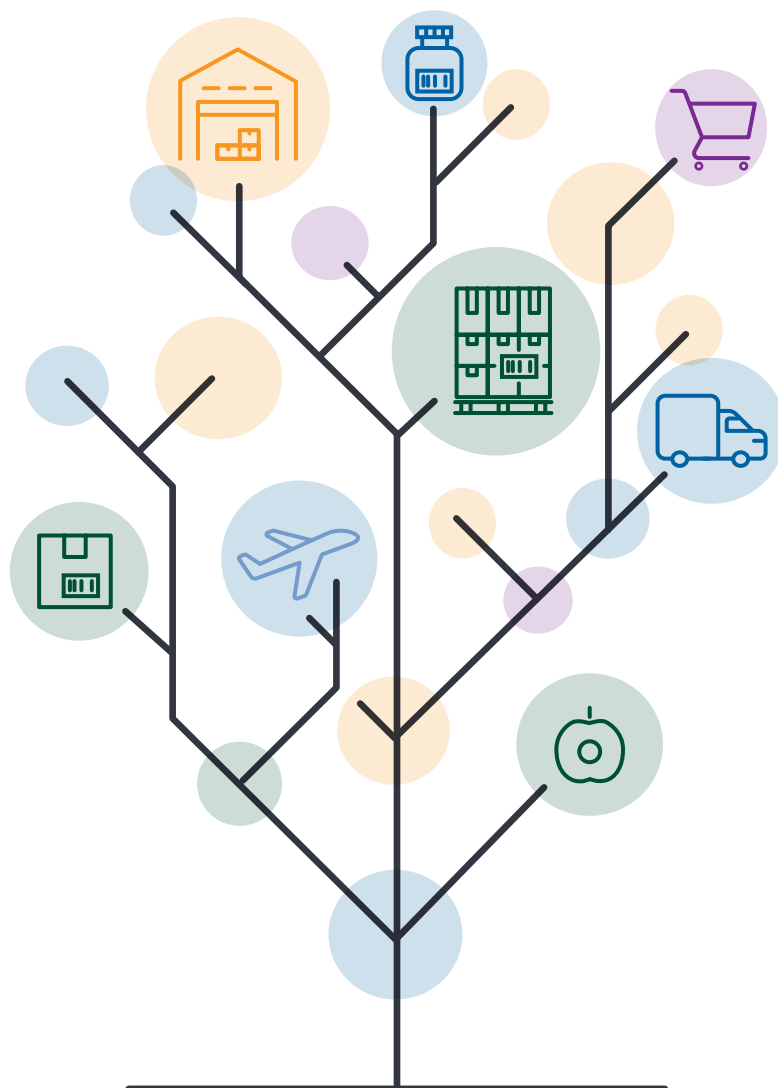
DECISION TREE 2

What traceability system is right for your business?

If you already have a traceability system, start here.



Scan to view
Decision trees



A decision tree uses a pathway to ask questions and help gather information to make a decision.

Where to from here?

This guide is a starting point for businesses in the agricultural supply chain to learn about traceability in their business. Following the guide may help when starting a conversation about traceability needs with a service provider.

Upon finishing, you will have a clearer idea about:

- what you want the traceability system to do
- how it needs to fit into your business operations
- the capabilities and resources you already have available
- your budget and
- expected return on investment.



For more information visit the Agriculture Victoria Traceability Information Hub: agriculture.vic.gov.au/traceability

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