

# Traceability 4 Biosecurity

International and domestic movement of physical goods can represent major biosecurity threats for Australia



The ability to accurately, rapidly and cost-effectively identify, capture and share information for product and material movements through supply chains, is of critical national importance. GS1 standards make this possible in ways that traverse industry and legal jurisdictions, leveraging existing industry processes and information conventions, extensively adopted by trading partners and recognised by international trade facilitation agencies.

## Biosecurity risk management - a global and national challenge

The interconnected nature of supply chains, multiple modes of transport and trade, including online marketplaces and direct delivery, pose new challenges for governments, industry and other stakeholders in protecting Australian industry and community.

National risk exposure is significant, especially for primary industries. Direct economic impacts of a large-scale foot-and-mouth disease outbreak for example, is estimated at over \$80 billion. Projected cost of pollination losses attributed to Varroa mite incursions are each over \$5 billion. Damages attributed to invasive species over the past 6 decades is estimated at almost \$400 billion with many native species impacted.

## Traceability is critical for stronger, more effective biosecurity management

Knowing where products originate, their biosecurity status, where they have travelled, who has interacted with physical goods (including more than 2.5 million shipping containers and rapidly growing parcel freight) and when, is critical for effective mitigation and incident response.

Pest and disease have no regard for political jurisdictions or commodities making harmonised and standardised systems of national importance. Supply chain traceability requires a coordinated national approach to biosecurity risk and response management.

Global data standards, including GS1 standards play an important role to identify products, the location and the path taken through the supply chain. Unique identification of properties and supply chain parties that may constitute the transmission of vectors are essential for effective planning, mitigation, and biosecurity event response.

The international Covid-19 pandemic demonstrated the value of contact tracing to contain the transmission of the virus. Contact tracing proved a powerful public health measure and relied on accurate and rapid identification of people and places/locations. In countries, including Australia, QR codes were used to 'check in' to businesses and these locations were identified with GS1 Global Location Numbers (GLNs). The data collected enabled government to manage healthcare responses, protect the public and reduce the economic impact and cost to society.

## Enhanced traceability based on common standards

Enhanced traceability based on common standards that traverse sectors and states, reduces the need to transcribe, manually process and translate information, errors and bottlenecks.

### GS1 Traceability standards can help:

- Industry and government can track and trace product through supply chains using unambiguous and globally unique identifiers
- The rapid capture and sharing of information about products, locations and distribution networks, enables the rapid identification of properties and products, thereby minimising the impact of a biosecurity incident
- Capturing of important event information to assist with contact tracing, identification of root causes and sources of pests or diseases
- Supporting the use of electronic certification to confirm biosecurity status and enable greater market access

Governments are leveraging processes that are already in place and used extensively by industry, to reduce biosecurity risk, enhance response processes and enable market access. Leveraging national product and location registries for example, helps government avoid cost and duplication of effort in designing industry-specific biosecurity management systems.

## Key benefits of standardised traceability for biosecurity

Economic, environment and social benefits of effective biosecurity risk management are broad ranging and directly impact livelihoods and viability of regional communities. To illustrate the significance of effective traceability, a summary of biosecurity management, with and without standardised traceability, is outlined in Figure 01.

As defined in the National Biosecurity Strategy 'Our national system is greater than the sum of its parts. It's a multilayered network of people, critical infrastructure and technology, partnerships, processes and regulatory activities that function cohesively overseas, at our border and within Australia to protect our national interests.'

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## Biosecurity with strong, standardised traceability

- Rapid and unambiguous identification of at-risk or impacted product, thereby avoiding regional or jurisdiction lockdowns.
- Ability to capture and share information to trace and isolate sources of transmission enabling more rapid control of the spread
- Reduced impact, cost and suffering minimising financial, economic, social and systemic costs, including trade/market access
- Support the adoption of electronic certification that identifies the biosecurity status of products to enable access to international and domestic markets

## Biosecurity with mild or disparate traceability

- Sector or regional specific responses - most likely involving jurisdictional lockdowns
- Limited ability to control or track transmission across sectors (via transport and other vectors)
- Delays and costs with processing data and translating formats due to policy and process interoperability issues
- More severe impacts and losses with higher risk exposure including market access

Figure 01

GS1 Australia and the National GS1 Traceability Advisory Group (NGTAG) are committed to working with government to provide practical pathways for enhanced national biosecurity, to help secure a positive future for Australian industry.

## Call to action

1. Nationally harmonised property identification systems for animal and plant industries
2. Interoperable systems and open standards for the traceability of physical goods
3. Awareness and education to enhance knowledge and encourage support from industry and government regarding existing traceability and supply chain standards, systems and processes applied by Australian industry and its trading partners.

## More information

Join the national discussion on how traceability can enhance national biosecurity management systems.

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