

Why traceability is key to a sustainable future in South African agriculture

By [Justin Platt](#)

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Traceability has become a crucial element of food safety and quality assurance in agriculture. International governments and consumers are increasingly concerned about the safety and validity of claims about the produce they import and consume. The food supply chain is complex, and a lack of transparency and technology solutions in the supply chain system creates significant challenges for agribusinesses today.



Source: Supplied

Implementing end-to-end traceability in agriculture contributes more than just regulatory compliance or ensuring food safety. It lowers operational costs for producers, improves profitability, regulates fraudulent activities or unethical practices, and unlocks new business opportunities. It's worth highlighting how traceability technology can help to highlight unnecessary bureaucracy that disproportionately increases the production cost to the farmer and therefore to the consumer.

In essence, we need to have a blockchain-type process that allows you to rate every loaf of bread or avo that you eat on its nutrition density, value, origin, and cost to the environment — not just rands and cents.

Global trends and drivers for traceability include:

Changing consumer demands and preferences

Consumers worldwide expect food and fibre products to align with their preferences, including higher animal welfare, sustainability, and other production and supply chain characteristics. Meeting these demands requires end-to-end traceability that tracks the entire product lifecycle from the farm to the fork.

Increasing import market regulations

Mandatory measures being implemented by importing country governments are increasing, and agribusinesses must respond to these measures in a timely and efficient manner to maintain market access and take advantage of the opportunities available in growing export markets.

Increasing globalisation and competition in the agribusiness industry

South Africa is a major producer and exporter of a wide range of agricultural products, including fruits, vegetables, grains and livestock. The country's agribusiness industry is facing increasing competition from other producers around the world, who are also seeking to capture a share of the global market.

To remain competitive, South African agribusinesses need to demonstrate that their products are safe, high-quality, and sustainably produced, and that they can be traced back to their origin. [Traceability can help South African agribusinesses](#) meet these demands by providing a means of verifying the safety, quality, and sustainability of their products. It can also help them to differentiate their products from competitors by highlighting their unique characteristics and attributes.

Additionally, traceability can help reduce the risk of product recalls or contamination incidents by allowing for prompt and targeted responses to any issues.

Emerging and evolving technology

New technology is driving higher industry and government expectations for transparent, accurate, appropriate, and timely information. Integrating these technologies into business management systems for enhanced traceability can help increase productivity, reduce food waste and fraud, and improve food safety and biosecurity assurances.



Justin Platt, founder and CEO of Zylem and RegenZ

South African traceability success stories

Wine

South Africa is one of the world's top wine-producing countries, and the wine industry has implemented a traceability system called the [Integrity and Sustainability Certification \(ISCC\) programme](#). This programme requires participating wine producers to implement environmental and social sustainability practices and to maintain records of their production processes. The programme also provides for third-party auditing to ensure compliance with the standards.

Beef

Traceability systems are increasingly being implemented in the South African beef industry to meet the requirements of export markets. One example is the [Meat Safety Act \(MSA\) of 2000](#) which requires all abattoirs and meat processors to maintain records of the animals they process and the products they produce. The MSA also provides for the identification and tracing of individual animals using ear tags and other identification methods.

Rooibos tea

Us South Africans love our rooibos, and our signature 'red bush' tea has gained popularity in international markets. In 2021, the European Commission approved the registration of the designation 'Rooibos'/'Red Bush' in its Register of

Protected Designations of Origin and Protected Geographical Indications. Product names registered as protected designations of origin have strong links traceability to their source since every production, processing, and preparation aspect must take place in that specific origin using recognised know-how.

Woolworths

Woolworths South Africa is strongly committed to traceability throughout its supply chain to ensure its products' safety, quality, and sustainability. The company aims to have a fully transparent, traceable and ethical supply chain by 2025. To this end, Woolworths has implemented a number of initiatives to improve traceability and transparency, such as supplier auditing, detailed product labelling, sustainable sourcing, and technology solutions to improve traceability and transparency, such as blockchain and RFID (radio-frequency identification) technology, which allow for real-time tracking of products through the supply chain.



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Justin Platt 14 Dec 2022



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Knowing and minimising your carbon footprint: Certain supply chains are putting pressure on farmers to know and to minimise their carbon footprints. With access to traceability and carbon data, farmers become better equipped to make informed decisions on which suppliers, transporters and partners to work with. For example, using products that have already quantified their carbon footprint is an easy way to choose products that can lead to lower footprints and more attractive produce prices.

Ensuring food safety: Traceability systems allow for the identification and tracking of agricultural products, from farm to fork. This makes it easier to detect and contain food safety incidents, such as outbreaks of foodborne illness. By implementing traceability systems, South African agriculture can help ensure the safety of its products and protect public health.

Promoting environmental sustainability: Traceability systems can also help promote environmental sustainability by allowing for the monitoring and management of inputs and outputs throughout the supply chain. This can include tracking the use of pesticides, fertilisers, and water, as well as the emissions of greenhouse gases and other pollutants. By monitoring and managing these factors, South African agriculture can reduce its environmental footprint and promote more sustainable practices.

Enhancing market access: Many international markets increasingly require traceability for agricultural products. By implementing traceability systems, South African agriculture can meet these requirements and gain access to these markets, which can help increase export earnings and support economic development.

Supporting social sustainability: Traceability systems can also help support social sustainability by promoting fair labour practices and ensuring compliance with social standards. This can include monitoring working conditions, ensuring fair wages and benefits, and protecting workers' rights.

Traceability is key to a sustainable future in South African agriculture because it supports food safety, environmental sustainability, market access, and social sustainability. Implementing end-to-end traceability contributes to more than just regulatory compliance or ensuring food safety. It lowers operational costs for producers, improves profitability, regulates fraudulent activities or unethical practices, and unlocks new business opportunities.

By implementing traceability systems, South African agriculture can ensure the safety, quality, and sustainability of its

products, and support economic development and social well-being. Watch this space; new technology is accelerating traceability, and we're excited to be on the journey!

ABOUT THE AUTHOR

Justin Platt is the founder & CEO of Zylem and RegenZ. Platt has a BSc in Plant Pathology and Botany from UKZN. He has been involved in the agricultural services industry since graduating in 1979. Platt has a passion for regenerative agriculture.

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