



The Global Language of Business

GS1 2D barcodes case study

Reducing food waste and improving bakery operations efficiency with GS1 standards

Brazilian retailer Jaú Serve improved productivity, reduced food waste and lowered printing costs at its bakery counter using QR Codes powered by GS1.



Challenge

At the bakery counter, batch and expiry information was tracked manually, leading to time loss, operational inefficiency and a risk of expired products reaching consumers.

Solution

As part of implementing QR Codes powered by GS1, Jaú Serve transitioned from internal product identification to global standards. By adopting Global Trade Item Numbers (GTINs) (which enable product information to be shared and accessed globally through Verified by GS1), the retailer ensured accurate and trusted product information could be captured and used consistently across its store systems and by its customers.

Building on this foundation, Jaú Serve introduced QR Codes powered by GS1 for products in its bakery and confectionery (pastry) operations, including its private label products within these categories. Using GS1 Digital Link, the retailer structured data within the barcode to combine the product identifier with additional attributes such as batch and expiry dates, based on operational needs.

These data elements support food safety and inventory management and can be read automatically across in-store systems, including scales, data collectors and point-of-sale systems. For example, expiry dates are used at checkout to help prevent the sale of expired products.

The solution was integrated across store operations, requiring close collaboration between store teams, solution partners and GS1 Brazil to ensure the barcode could be read and used consistently across systems.

In addition to supporting in-store operations, QR Codes powered by GS1 can also enable redirection to online content, providing flexibility for future use cases beyond point-of-sale.

Benefits

- **Improved productivity** in inventory and operational tasks.
- **Automatic blocking** of expired products at the point of sale.
- **Reduced food waste** through more-efficient inventory management, enabling earlier identification of expiry risks and preventive action.
- **Lower printing costs, including 30% savings** on thermal printhead replacements.



What were the results and key learnings?

The pilot demonstrated how GS1 2D barcodes can deliver immediate operational benefits while creating a scalable foundation for future innovation.

- QR Codes powered by GS1 can be implemented using existing store infrastructure, enabling a fast and cost-efficient deployment without additional hardware investment.
- It is important to ensure that systems and partners can work together effectively to support consistent handling of batch and expiry information across operations.
- QR Codes powered by GS1 can solve specific operational challenges while creating a foundation for broader business and consumer use cases.



Next steps

Following the pilot, Jaú Serve is evaluating the rollout of QR Codes powered by GS1 across additional product categories and stores.



Interested in implementing GS1 2D barcodes in your organisation?

Explore [how to get started with GS1 2D barcodes](#) or [contact your local GS1 Member Organisation](#) for support.



Jaú Serve, a Brazilian supermarket chain with 48 stores, is using GS1 2D barcodes to improve productivity, reduce food waste and prevent the sale of expired products in its bakery operations.

About Jaú Serve

Jaú Serve is a Brazilian supermarket chain with 48 stores serving customers across the state of São Paulo. The retailer focuses on operational excellence and innovation to improve efficiency, product quality and customer experience.

www.jauservesupermercados.com.br



About GS1

GS1 is a neutral, not-for-profit organisation that develops and maintains the most widely used global standards for efficient business communication. Best known for the barcode, GS1 standards create a common language that supports systems and processes across the globe, improving the efficiency, safety and visibility of supply chains in over 25 sectors.

www.gs1.org

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