

REID FRUITS DEPLOYS LAAVA'S DIGITAL FINGERPRINTS TO OUTSMART COUNTERFEITERS

EXPORT CASE STUDY | JANUARY 2020

Tasmanian cherry grower Reid Fruits has teamed up with brand and product integrity startup Laava to prevent counterfeiters from copying Reid's distinctive packaging.

Reid Fruits is applying Laava's patented Smart Fingerprint technology on its cherry boxes for 20 export markets during the 2019–20 season. The technology uses advanced computer vision technology developed in collaboration with CSIRO to produce a unique 'fingerprint' that can be scanned by any smartphone.

Unlike barcodes or QR codes used in the past, Laava's Smart Fingerprint technology is much harder to impersonate or replicate and much more secure, making it more resistant to counterfeiting. It also delivers detailed brand and product information and interactive experiences to consumers. In addition, the technology can be easily modified to include new features.

'Our Laava Fingerprints are designed with two things in mind: to enable better experiences, trust and transparency for consumers, and to ensure safety and security for brands,' says Gavin Ger, Commercial Director, Laava.

'Counterfeiting is a massive issue for us and other Australian producers,' says Tim Reid, Managing Director, Reid Fruits. 'Laava's Smart Fingerprint technology offers a level of secure authentication that we believe will make it extremely difficult for counterfeiters to replicate.'

Fighting the fakes

Based in southern Tasmania, Reid Fruits is a family-owned business that has been operating since 1856. After growing apples for over 140 years, in 2000 the company turned its attention to cherries, securing a



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500-acre property in the Derwent Valley where it has planted more than 100,000 cherry trees.

Reid Fruits started exporting cherries in 2005. Almost from day one, the company's premium products have been targeted by counterfeiters, including in Hong Kong, Malaysia, Taiwan and Vietnam. In 2018, Reid Fruits received a photo from an Indian distributor of one of its cherry boxes – two weeks before the export season started.



Australian Government

Australian Trade and Investment Commission

Counterfeiting is particularly problematic in China, Reid Fruits' largest export market. Following a visit by Chinese President Xi Jinping in 2014, demand for Tasmanian products and Tasmanian cherries in particular skyrocketed – as did the counterfeiting of Reid Fruits' cherries.

Reid Fruits has spent tens of thousands of dollars to prevent counterfeiting, switching to higher-quality packaging, using special processes such as embossing and foil on its cartons, introducing a watermark on its box bases and printing its logo on the long-life plastic liners that keep cherries fresh in the box. The company has also included a seasonal, laser-cut, embossed foil sticker on the outside of its boxes and a card inside with a unique QR code which when scanned, links to a website that authenticates the product.

'In the 2018 season, all these elements were copied within the first two weeks of the boxes appearing in the Chinese market,' says Tony Coad, Manager, Marketing and Sales, Reid Fruits.

The QR-based technology was especially troubling for Reid Fruits, as counterfeiters simply created their own QR codes that linked to a fake authentication website (a technique known as 'spoofing').

'It's hard to quantify the impact on our sales simply because we really don't know how much counterfeiting is going on,' says Coad. 'For example, counterfeit products are being sold online at a reduced price, so that puts pressure on us to lower our price to be competitive.'

'Counterfeiting not only leads to a direct loss of sales for us, it also affects our importers and distributors. In 2018, one of our Chinese importers had his sales basically halved from the year before, he estimates he lost around A\$400,000.'

In addition to loss of revenue, counterfeiting puts Reid Fruits' reputation at risk. 'If the counterfeit product is of an inferior quality – and they usually are – that can have a damaging long-term impact on our brand,' says Coad.

He adds that counterfeiting has industry-wide ramifications. 'A significant amount of work has gone into negotiating protocols for Australia to gain access to the markets with which we trade. If the counterfeit products are contaminated, this could severely jeopardise our market access.'

Advanced optical technology delivers trustworthy authentication

Reid Fruits' search for new anti-counterfeiting technology led the company to ask Austrade for assistance. Austrade's industry experts introduced Reid Fruits to a number of companies offering innovative authentication solutions.

After an extensive assessment, Reid Fruits elected to work with Laava.

'Laava is using a newer, higher standard of optical recognition which is not so easy to impersonate or replicate,' says Coad. 'We also wanted something that would be ready to roll out for the 2019–20 season and Laava's technology was ready to go: they sent us an email with a product proposal and we could use our smartphones to test it.'

Developed and refined in collaboration with CSIRO over two years, Laava's Fingerprint technology is unique in that it uses an optically based process to validate products. The technology also uses multi-factor authentication, is blockchain-ready and integrates directly with industry-standard packhouse management and traceability solutions.

Consumers use the Laava mobile website to scan the Fingerprint from any smartphone (there's no need to download an app). Chinese consumers can also access a version of Laava's scanner in WeChat. From early 2020, brands will be able to integrate the scanner within their own app, website or WeChat account.

'Most of the codes used to identify products at the moment like QR are 'read' by a camera or a phone looking at the code and decoding it,' explains Ger. 'There's no actual authentication going on – the scanner just reads the code and actions whatever the code tells it do. Most also use open standards that allow anyone to generate a code. These types of codes are a counterfeiter's dream and a serious risk for brands – they were never designed for authentication.'

'What makes Laava different is that each Laava code is unique and can only be generated by Laava – every box of cherries will carry a one-off, serialised identifier,' says Ger. 'When the code is scanned, our technology optically compares the image of that code against our database. Only when it finds a match will it authenticate the product.'

'That allows us to immediately identify cases where someone has tried to copy or simply pass off a code that *looks* like one of ours as a legitimate Laava Fingerprint. This same secure process allows brands to enforce business rules, such as checking the number of scans, and where those scans are taking place.'

Engaging consumer experiences

Coad says another appealing feature of Laava's technology was its simplicity and ease of use for the consumer.

'There are technologies that involve peel-off labels or layers of foil, or which require special readers. We want to make it easy for our customers to

authenticate the product, that's why we chose a solution that could be scanned by a smartphone,' he says.

'There's a lot of focus on traceability and what we call "forensic" authentication of products but there really hasn't been anything consumers can engage with easily, using a smartphone,' adds Ger. 'And that is what Laava delivers – something that any consumer with a smartphone can scan and trust. It looks friendly and engaging, and has all the elements that authenticate a product as the 'real' thing.'

The organic shape of the Laava Fingerprints – which resemble the organic flows of lava – also allows Laava to embed further security and other features over time, while the extensive focus on creating rich consumer experiences is designed to build brand equity and customer engagement.

'Reid Fruits has a significant heritage that goes back five generations so they are interested in promoting their story, particularly in China, where consumers are interested in learning about the provenance of a product and the rich stories behind it,' says Ger.

Another Laava client, Tamburlaine Wines, includes static content about its organic winemaking process in the fingerprint, as well as interactive content designed to build engagement.

'When you scan Tamburlaine's fingerprint, you can shop online, join the winery's cellar door program, and follow them on WeChat,' says Ger. 'It creates deeper engagement with consumers. Tamburlaine is interested in promoting tourism to the Hunter Valley, and we are working with them to offer packaged tours to their winery and the Hunter Valley area as part of the Laava-enabled experience.'

An evolving technology

Laava has dedicated R&D, product, customer experience and engineering teams that are continually developing the Smart Fingerprint technology.

'We are working on a raft of advanced capabilities that will go live over the next 12 to 24 months,' says Ger. 'This is another differentiator from QR codes; QR codes have reached the end of their development potential whereas Laava's product development roadmap is packed with exciting new features.'

'Our long-term goal is for the Laava Fingerprint to be the global mark of trust, connecting brands and their consumers,' says Ger. 'We want to make the Laava Fingerprint extremely cost-effective and easy to deploy, so that it becomes ubiquitous – literally as simple and low-cost as a printed label.'

Laava is now turning its attention to building a network of industry software and blockchain integrations, as well as labelling, printing and packaging distribution partnerships to make it even easier for brands to get started.

'We'd love every Australian exporter to use the Laava Smart Fingerprint on their products to help them grow and protect their businesses,' says Ger.

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