



Global markets are flooded with fakes and counterfeits of everything from clothing, to Manuka honey | Photo source [Arwin Neil Baichoo on Unsplash](#)

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PROCESS TESTS THE AUTHENTICITY OF PRODUCTS



A New Zealand-based company tests radioactive isotopes to determine the provenance of different products

Spotted: New Zealand biotech company, Oritain Global, has achieved notable success at determining food, fibre and pharmaceutical provenance. Product authenticity is having a large impact on company sales, as global markets are flooded with fakes and counterfeits of everything from clothing, to Manuka honey. Oritain has responded by developing a unique method for determining the provenance of products.

Oritain uses a variety of methods to verify supply chains and provide proof of origin. For example, they have built a comprehensive global library of cotton varieties, so they know exactly what US, Australian or Chinese cotton looks like. The company also analyses levels of various radioisotopes in products, matching them to the isotopes found in authentic samples. The ratios of different radioisotopes can also inform Oritain whether, for example, a plant was grown in a particular location, or whether an animal was fed organically.

Oritain also analyses trace elements to create a “fingerprint” of the authentic product. This technology has been used by a wide variety of producers; for example, Scottish salmon producers had Oritain launch sting operations on food outlets and restaurants suspected of selling inferior fish that bears the company’s brand.

The company’s “origin fingerprint” technology is backed by a massive database. Ultimately, the goal is for the Oritain trademark to be a trusted certification of authenticity; according to the company: “Producers will come to us and ask for a one-off, but we aren’t a lab, we are about forging partnerships, solving problems and providing longer-term value.”

At Springwise, we have been tracking several innovations in business transparency, many of which are using blockchain technology. These include a decentralised database that tracks the authenticity of [olive oil](#), and the use of blockchain to track products from [farm to store](#).

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Takeaway:

Consumers are placing increasing value on trust and transparency, wanting to know if they are paying the right amount of money and that they are getting an authentic, non-adulterated product. Events such as the recent [Welspun scandal](#), in which falsely-labelled Egyptian cotton was sold to hundreds of US retailers, have publicised the problem. The British investment company Agronomics recently paid over €450,000 for a 1.1 per cent equity stake in Oritain, valuing the company at more than €41 million, a value that will likely grow as authenticity becomes even more desired.