

According to the International Standards Organisation (ISO) the definition of traceability is *"The ability to trace the history, application or location of an item or activity by means of recorded identification."*

With the increase in demand for sustainable and eco-friendly apparel, track and trace technology has been an inventive way for consumers to follow the supply chain of their garment all the way down to the exact origins of the initial fiber. Traceability allows consumers to have complete access to information about every step of the process chain which greatly reduces any information asymmetry that exists between buyers and sellers.

This technology stands to benefit not only the consumer but every agent of the entire supply chain. This type of transparency greatly increases a producer's incentive to uphold and maintain high standards of ensured quality. Traceability can prevent manufacturers from buying lower quality materials and allow retailers to better justify their high costs for higher quality products. Moreover, having a crystal clear production process greatly reduces price pressures on various aspects of the supply chain.

Increased counterfeiting has been a result of increased global import and export penetration. Moving production to countries with weak regulation will cause a substantial amount of technological and intellectual theft providing the opportunity for lower quality goods to be sold under a higher quality label. Many labels have fell victim to tarnished brand reputation and controversial stories regarding their sourcing methods.

Companies are researching ways to create a link in a supply chain which allows one to reliably track products from the field to the final customer. From barcode technology to forensic testing, traceability is becoming more important for customers and producers.

It's In The Genes

Applied DNA Sciences, based out of Stony Brook University in New York, provides technology and solutions to protect the integrity of textiles. Their SigNature DNA and BioMaterial

Traceability

REALITY CHECK?

Genotyping are the company's latest approaches in traceability and protection of brands and intellectual property from field to final customer. Using the DNA of everyday plants to mark objects is a unique process which cannot be replicated. It gives the raw material producer or textile manufacturer a definitive means for ensuring quality and authenticity of his product. DNA is versatile, allowing it to be embedded into any sort of fiber or polymeric raw material used in technical textile products. SigNature DNA threads and yarns can now be customized for each brand owner or manufacturer and used to sew linings, button closures, woven labels and even the garment itself.

APDN's solutions has been implemented by American Pima cotton

representative, Supima, to develop DNA protocols to identify and authenticate Pima cotton grown in the US as well as in finished fabric. With BioMaterial Genotyping, products which claim to be what they claim to be i.e. organic cotton or recycled wool can now be authenticated and identified to their point of origin. With so many producers claiming that what they sell is 'green' or 'eco', APDN technology can now protect buyers from fraud, minimize false claims and protect brand images.

