



Sources	phys.org, The Sociable		
Date	June 2021		
Potential scale of impact	Certainty of outcome	Impact horizon	
★★★☆☆	★★★☆☆	H1	H2 H3

For over a decade, both public and private sectors have been developing new ways to send and receive information via DNA for various purposes - and the technique of [DNA barcoding](#) has become a popular method for tracing food supply chains.

One method used in food traceability requires programming microbial spores (i.e. from seaweed, yeast, or bacteria, etc.) with a unique DNA barcode identifier. The spores are then killed and sprayed onto food sources, so they can be traced throughout the entire supply chain. Due to their resilience, the lab-grown spores can remain on the surfaces of whatever they come in contact with for months without ever degrading.

In this respect, DNA barcodes may have the potential to become very [effective tools for contact tracing](#) when paired with other technologies.

Researchers from the University of Bath, University of the West of England, and Surrey Business School have [used a similar approach to compare DNA in chocolate](#) products to the cocoa when it is farmed. This means cocoa can be reliably traced back from an individual chocolate bar to the specific farms which cultivated the cocoa in it, a major advance on current fairtrading, certification and sustainability practices.

"This has the potential to revolutionize sustainability in a market rife with environmental destruction and human misery in that firms will now be able to buy from a specific set of known farms which have approved labor and environmental standards and to prove that their chocolate is made with that cocoa," said Michael Rogerson, researcher at the University of Bath School of Management.

