

Application of PCR - DGGE in Determining Food Origin

Case Studies of Pangasius fish from Viet Nam and Shea tree from Sub Saharian Africa

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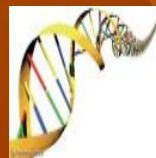
The determination of geographical origin is a demand of the traceability system of import-export food products. One hypothesis of tracing the sources of food products, as a global way, by analysing the microbial communities of food samples. This method permit to trace back the food to their original location. It is a new traceability tool which provides food products with a unique bar code (**Biological Bar code**)

Pangasius fish



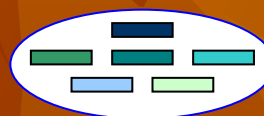
Shea tree fruits

Total DNA including microbial and food DNA



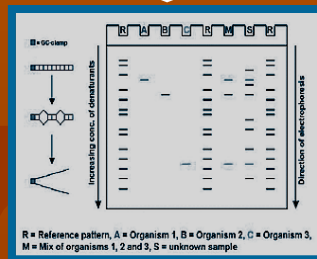
Extraction of total DNA

PCR Amplification of variable region of ribosomal DNA (Bacteria, Yeast, Molds) by the specific primers

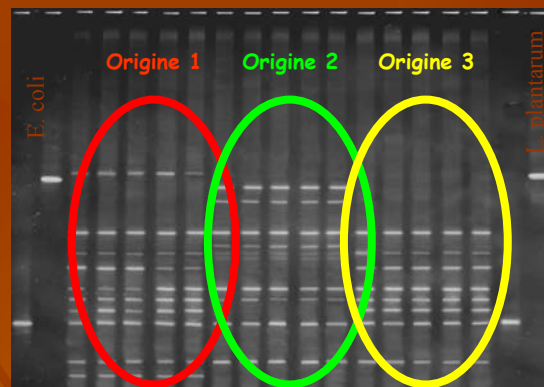


Mixture of PCR amplicons from different microorganisms

Separation of different DNA sequences by DGGE



DGGE profile of bacterial communities of Pangasius fish from 3 regions in Viet Nam



Comparative sequence analysis and determination of specific microbial markers of geographical areas

