Application of PCR-DGGE in Determining Geographical Origin of Fruits
Cases Studies of Physalis and Shea Tree Fruits

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Traceability is the capacity to find the history, use or origin of food. There are no existing analytical methods which permit to determine the geographical origin of food or follow them during international trade. PCR-DGGE is a molecular biology technique (new traceability tool) that permit to link microbial communities to the geographical origin in a very short time with a unique biological bar code. Our new method PCR-DGGE will permit to certify the fruit origin, Physalis and Shea tree fruits by using 26S rDNA fingerprinting of yeasts. Physalis & Shea tree fruits are included in the priority list of many governments’ fruits export plan, due to achieving a great success in local and European markets. Colombia exports of Physalis in 2004 were worth 14 million USD. The annual consumption of Shea butter in Europe (40.000-60.000 tons), mainly used (95%) by the chocolate industry but in Japan, USA and Switzerland would be intended for pharmaceutical or cosmetic use.