

TRACE

The overall goal of the TRACE project is to develop traceability methods and systems that will provide consumers with added confidence in the authenticity of European food. These systems will not only track and trace foods but will also incorporate additional data relating to the origin of food.

Significant correlations were found for the first matrix studied in the project, namely mineral water. By correlating certain stable isotopes, minerals and trace elements found in mineral water to the local environment, TRACE scientists were able to develop mathematical models that predict what levels should be found in a mineral water of given provenance. Furthermore, successful blind testing of the new procedure took place in 2007 with a 100 % success rate in correctly identifying two target mineral water samples from 18 other mineral and tap water samples. This was the first proof of concept that a system could be established where specifications relating to geographical origin could be produced automatically a priori, for use in checking provenance claims.

Other major technical outputs to date came from TRACE's work on developing (bio) analytical methods for confirming:

- varietal/breed information;
- geographical origin;
- and production technology of particular commodity.

In 2007, testing and validation of molecular markers able to trace French PGI beef products was completed. Similarly, profiling strategies employing various spectroscopic techniques were developed for characterisation of honey (Corsican versus non-Corsican origin) and cereal-based products (Rochefort 8 trappist beer versus other Belgian brands). The ambient mass spectrometry with a unique DART ion source – an emerging technology implemented by the Institute of Chemical Technology, Prague, Czech Republic – enabled the sample characteristics to be examined in real time. The markers will make it easier to verify breed/variety claims such as those relating to beef, honey and cereal – 'protected denomination of origin' products.

A universal TraceCore XML has been produced and disseminated on the web

(<http://www.tracefood.org>). The XML language permits a standardised means of data exchange between different actors in the food traceability chain. Several traceability software suppliers have already adopted TraceCore XML and discussions are currently ongoing with XML standardisation bodies on adoption of the standard. The system was successfully tested in the mineral water chain during 2007 and is currently undergoing demonstration within the honey and chicken sectors in France and China respectively.

TRACE has completed a comprehensive three-year study into European consumer attitudes to food traceability and authenticity. The work found that consumers relate safety benefits with identification and withdrawal of unsafe products, whereas quality benefits refer to eliminating fraud with respect to the labelling of origin, process and food composition. A large pan-European survey and conjoint choice experiment confirmed that European consumers are generally against paying for traceable foods and being overloaded with additional information from traceability systems although they were in favour of reliable information on country-of-origin, preferably via the internet.



Project title

Tracing food commodities in Europe

Project acronym

TRACE

Programme

FP6: 'Food quality and safety'

Project type

IP

Project duration

60 months

EC contribution

EUR 12.22 million

Project coordination

Paul Brereton, Central Science Laboratory, York, United Kingdom

Czech partner

Professor Jana Hajšlová, Institute of Chemical Technology, Prague

Partner countries

18

Partner institutions

52

Project website

<http://www.trace.eu.org>

Project on CORDIS

You can access the factsheet of the project on the CORDIS website. Using the Advanced Search function, click on 'Projects', then enter the project acronym in the acronym field.

<http://cordis.europa.eu>