# LINKING FOOD COMPOSITION DATA ON THE INTERNET – A LANGUAL APPROACH

## http://www.langual.org

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## SUMMARY

**LanguaL can provide a standardised method of linking Internet-based food composition databases. Foods are linked through their classification/ identification, using a master-code approach.**

**The new website for the LanguaL thesaurus includes an updated presentation of the LanguaL tree structure with all information included concerning the descriptors, allowing searches online. The prototype online search facility can be used to search food information in LanguaL indexed databases, with links to Internet-based food composition.**

**The LanguaL Internet site: http://www.langual.org.**

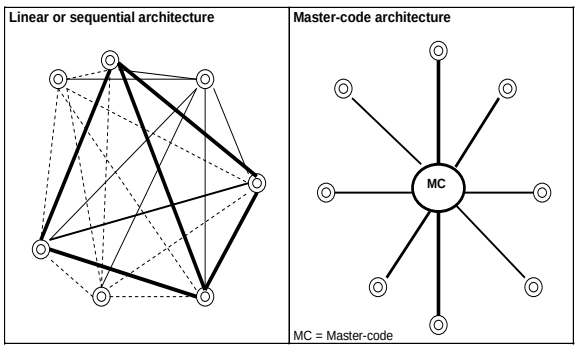
## INTRODUCTION

Although the name used for a food by the population that consumes it is very useful in identifying and retrieving food composition data from a database, it can be inadequate and even misleading to those who are not closely acquainted with the local language and culture.

Another possibility to retrieve and create links between foods in different food databases uses their food classification/ identification systems. This is done by "mapping" one system to another, as described by the WHO CARE Food Safety project [1].

## Food linking

In the linear translation approach, a code from one system must be associated with that of the 2nd, 3rd, etc.; then each code of the 2nd system must be associated with one of the 3rd etc. In the master-code approach, one coding system serves as an internal master-code with which all the others are directly associated. The master-code approach is flexible and allows for future development of the target food identification systems.




[1] Weigert P., Conti M., Lia F. and Meigs G. (1994). *International Synonyms System – A Software Approach to Merge Different Coding Systems*. CARE Telematics Project within the European Nervous System (ENS), EUR/HFA target 22, World Health Organization, Copenhagen

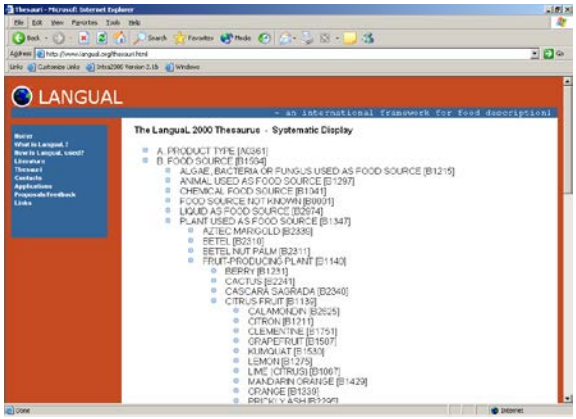
## LANGUAL

The LanguaL thesaurus can serve as an international master-code for linking food databases. LanguaL stands for Langua aLimentaria or language of food. It is a multilingual faceted thesaurus for describing foods, specifically for classifying food products for information retrieval.

It allows each food to be described by a set of standard, controlled terms chosen from facets characteristic of the nutritional and/or hygienic quality of a food, as for example the biological origin, the methods of cooking and conservation, and technological treatments. The thesaurus information is used to link together LanguaL indexed food composition data sets.

A new website for the LanguaL thesaurus has been developed with the support of the Danish Veterinary Food Administration at http://www.langual.org. This new website includes an updated presentation of the LanguaL tree structure (the systematic display) with all information included concerning the single descriptors, allowing searches online.

## LANGUAL online search facility




As a prototype, the online search facility will be used to look up food information in LanguaL indexed food composition databases in Denmark, Finland, France, Hungary, Spain, and the US with online links into the Internet-based food composition databases. The use of an XML (eXtensible Markup Language) schema will be used to demonstrate how to offer specific information to the users in a standard data interchange format.

## Significance

Food composition data have over the most recent years been introduced by national authorities and private enterprises on the Internet. The presentations cover a wide range of technical solutions and the layouts are of very diverse appearance. For the user, there is a need for more standardised presentation of data. This LanguaL based search system demonstrates the benefits of using standardised systems for linking food composition data from all over the world.

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