Compilation tool in Excel to manage food composition data in the absence of a food composition database management system

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Outline

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Introduction

- FCDBMS is needed to compile a food composition database
- FCDBMS exist:
  - for national/regional programmes
  - commercial products for different uses (e.g. labelling)
  - for certain projects
- No FCDBMS exists for international use as yet
- BUT especially developing countries do not have the financial means to develop their own FCDBMS software

➔ Compilation tool version 1.2 was developed by FAO/INFOODS to fill this gap

Compilation tool - objectives

- to give compilers a product to compile and manage their food composition database according to international standards
- to be simple in use while allowing comprehensive documentation
- to provide a flexible tool so that users can adapt it to their needs
- to be used with Food Composition Study Guide to practice calculation, documentation and compilation

Compilation tool - structure

- 125 nutrients (macro and micronutrients, AA, FA)
- based on INFOODS interchange (2003) elements (for value documentation, method, bibliography, sampling)
- uses INFOODS tagnames (component names)
- uses Greenfield and Southgate (2003) terminology (archival, reference and user database)
- includes nutrient retention factors from McCance and Widdowson's (6th edition), Bognar (2002) and Bergstroem (1994) – can be replaced by any other factors
- 3 recipe calculation systems (recipe, ingredient and mixed method)

Compilation tool - structure

In Excel with several worksheets:

- Codes
- Archival database
- Reference database
- Recipe + ingredients
- Recipe calculation
- User database
- Component
- Bibliography
- Value documentation
- Sampling
- Methods
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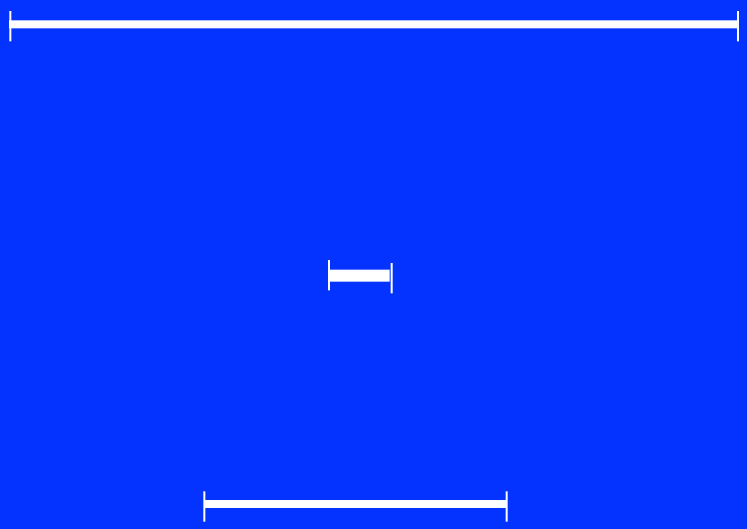
Analyse or calculate NVs of recipes



Inter-and intraindividual variation in recipe preparation

Variation of NV in analytical determination

Variation of NV when calculating recipes using yield and retention factors

Why analyze recipes if calculated NV are within variablity of recipe preparation?

Compilation tool - dissemination

- Available at the INFOODS website http://www.fao.org/infoods/SOFTWARE/compilation%20tool%20version1.2.xls
- Free of charge
- No user manual exists yet but instructions are found in exercises in Food Composition Study Guide (modules 8, 10, 10.a)

Compilation tool - users

- Has been used to compile food composition database of Lesotho and Armenia
- Updated version 1.2 after receiving comments from INFOODS listserv
- Learners using the Food Composition Study Guide to practice calculation, documentation and compilation
- Compilers without access to comprehensive FCDBMS

Used to compile biodiversity database in FAO

- add phytoestrogenes (with INFOODS tagnames)
- compile data from the literature on biodiversity

➔ if you have data that you wish to share please send to ruth.charrondiere@fao.org

Conclusions

- simple, cheap, flexible and useful tool for global use according to international standards allowing compilation with full documentation
- for compilers without FCDBMS and learners of Study Guide
- BUT use of spreadsheets are more prone to errors as compared to relational databases and users must know Excel

➔ meets an immediate need

➔ hoped that SQL or Access relational databases could be developed following this model and disseminated through FAO/INFOODS free of charge