RECOMMENDATIONS FOR PUBLISHING FOOD COMPOSITION DATA ON THE INTERNET

Minimal Recommendations for the Layout of the Web Page

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1. Introduction

Food composition data are important for the general public and for scientific cooperation. Currently only three national food composition databases are published on the Internet: those of the United States, Denmark and Finland. However, other countries like Hungary, Switzerland and Iceland have projects to publish their data in the near future. Moreover, an experimental search engine was published this year on the LanguaL homepage <http://food.ethz.ch/langual/> allowing the search for foods in the US, French, Hungarian and Danish food composition databases; the search also links to food composition on the USDA Internet site.

The BALATON Project on Database Management has produced this position paper as a contribution to its final year report. The purpose of this paper is to propose minimal recommendations for publishing food composition data on the Internet. Recommendations included page layout and readability, page content (e.g., languages, food identification, authority information), table content (e.g., components, mode of expression, matrix presentation), and searching interface.

The minimum recommendations for publishing food composition data on the Internet were discussed at the joint BALATON/COST Action 99 workshop held in Paris on 7-11 May 1999. The workshop defined two formats of food composition publishing on the Internet: simple publishing, online database query. Only the **simple publishing** is described in these minimum recommendations, whereas the online database query will be discussed in a future paper.

2. Definitions

Simple publishing: data are published as in printed version, downloadable or not, in an interchange format (e.g., HTML, PDF). The published data are presented in a fixed format, either for a single food or for several foods (food/component matrix presentation).

Single food presentation: data are presented for only food at a time.

Matrix presentation: data are presented for several foods at a time in a food/component matrix, a spreadsheet format.

Online database query: data are held in an online database and can be queried directly from the user terminal. The result of the query is dependent on the query.

3. General Recommendations

Internet browser

The browser should be Internet Explorer, Netscape Communicator or compatible), version 3.x or higher. The user should be informed on the home page that these pages are best viewed using which browser and that the default settings of the browser have been used. Of course, the user can modify these settings, if needed.

Readability

Pages should be constructed for a minimum **screen resolution** of 800x600.

Color depth of the pages should be at least 8 bit (256 colors) or black & white. Image color depth can be 16 bit, but the size of images should be confined to 20-40 kb.

Text should be black & white, but on demand it can have other colors. The font type used should be Sans Serif; the size is browser default.

The **layout** should be consistent. Borders of tables should be as small as possible.

The use of **style-sheets** and **frames** is not excluded, but as older Internet browser versions can have problems displaying them, care should be taken when using them.

4. Page content: single food presentation

Food identification

The **food** should be clearly identified at the top of the screen. The name of the food should be available in the national language(s) and in English as well. The original food ID should be displayed as in the food composition table. Any further description is welcomed, eventually accessible via a hyperlink.

Authority information should preferably be presented at the bottom of the screen: Administration responsible, version number and/or date, URL of the page.

Presentation of Data Tables

The **mode of expression** of results (e.g., per 100 g edible portion of food) should be clearly stated.

Columns for the name of component, its unit of measure and its value should be given as a minimum. Further columns are welcome (e.g., component tagname, minimum and maximum values, number of analyses/samples, bibliographic reference), but the layout of the table should not exceed 800 points (the minimum screen display resolution). For the tagnames, use COST recommendations for data interchange. English translations of component names are recommended and may be provided on a separate page via hyperlink.

Components can be grouped, but if so, it should be done in a reasonable manner and begin with the proximates at the top of the table.

Choice of components

One can print only the available data for each food, or vary the list of components according to food group. It is, however, preferable to use the same matrix for all foods (which would mean blank values for missing data) as this will produce consistent tables.

Access to single food page

For simple publishing on the Internet, foods should be accessible by food group lists and/or alphabetical lists. Food items can be grouped or can be arranged in alphabetical order; strings and synonyms can also be used. The above mentioned should be published in the native language(s) and in English as well.

5. Page content: matrix presentation

Presentation is more difficult when several food products are presented on the same page. For the matrix presentation of food composition data, the recommendations for food identification, mode of expression, component identification and authority information mentioned above (single food presentation) also apply.

Limit the horizontal page width to 800 points (minimum screen display resolution), in order to avoid horizontal scrolling. The food names should always be visible.