

# Guide for Nutrient Data Users

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The increasing accessibility of computers to professionals in research, education, and health care facilities is resulting in many more users of nutrient data. However, documented studies have shown errors and inconsistencies in applications of computerized nutrient data bases. Many users of nutrient data bases are searching for information and guidance to help them use the data appropriately and accurately. Definitive guidelines for the use of nutrient data are needed since fewer users are acquiring copies of up-to-date printed tables. Data bank conference proceedings are helpful but are not in wide distribution.

HNIS, USDA has agreed to cooperate with me and Case Western Reserve University to produce such a guide for users of USDA nutrient data and data from other sources. It is planned that such a publication will be made available in machine readable form to purchasers of USDA files and in printed form to users.

An outline has been prepared and reviewed by selected data base users and data base system developers. I would like to review this outline with you today and will be pleased to receive any comments or suggestions. Betty Perloff and David Haytowitz of the Nutrient Data Research Branch of USDA are working with me. We plan to have it completed for publication this fall.

## Outline

### 1. Introduction

- A. Purpose
- B. Organization of guide
- C. Suggestions for using

### 2. Definitions

- A. Food composition tables, nutrient data bases

- B. Related terms (household measures, yields, equivalents, retention, flags, impute, missing values, etc.)

### C. Nutrient data base systems

## 3. USDA and food composition tables

- A. History
- B. Acquisition of data
- C. Nutrient Data Base for Standard Reference
  - 1) Relationship to Handbook 8
  - 2) Foods, food names
  - 3) Nutrients
  - 4) Formats
    - a) Correspondence with old Handbook 8 (1963)
    - b) Correspondence with Revised Handbook 8
    - c) Explanation of fields
  - 5) Updating, release schedules
  - 6) Forms, formats available
    - a) Machine readable
    - b) On line file transfer
- D. Revised Handbook 8 - printed
- E. Notes about USDA data
  - 1) Sources
  - 2) Representative values
  - 3) Reliability
  - 4) Notes on nutrients, foods
  - 5) Levels of accuracy, precision, imputing
- F. Other USDA food composition tables, reports, provisional tables

## 4. Data from other sources

- A. Analysis methodologies
- B. Sources of variation
  - 1) Laboratory

- 2) Calculated
    - a) Recipes
    - b) Product formulas
    - c) Documentation
  - C. Nutrient/food component relationships - moisture, solids, etc.
  - D. Sources, report formats, documentation
    - 1) Food industry
    - 2) Research journal reports
    - 3) Nutrition labels, product labels
    - 4) Laboratory analysis
    - 5) Other nutrient data bases, published tables
  - E. Special problems with some nutrients, foods
    - 1) Analytical methods
    - 2) Bioavailability
    - 3) Distribution in food supply
    - 4) Timeliness and adequacy of data
5. Using food composition data on a computer
- A. Storing data
    - 1) Food names
    - 2) Food codes
    - 3) Quantity definition
      - a) Unit conversions
      - b) Household measure equivalents
      - c) Conversions from food models
      - d) Conversions from dimensions
      - e) Frequency factors
  - B. Accessing data
    - 1) Calculations, formulas
    - 2) Coding decisions, guidelines
    - 3) Recipes
      - a) Yield factors
      - b) Retention factors
      - c) Fat, water losses or gains
  - C. Reporting data
    - 1) Summaries, averages
    - 2) Precision, rounding, missing data
    - 3) Dietary evaluations - RDA, % energy, ratios, etc.
    - 4) Formats
6. Maintenance of nutrient data base
- A. Updating
  - B. Adding data - foods and/or nutrients
  - C. Documentation
  - D. Quality control
  - E. Archiving
7. Tools, references for using nutrient data