

## The New Zealand Food Composition Database (NZFCD)

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### **Background**

The New Zealand Food Composition Database (NZFCD) is the major source of the verified food composition data for New Zealand foods and beverages. The purpose of this programme is to continue to increase the number of foods with up-to-date, accurate data for the food components and to be used for a variety of purposes such as nutritional, educational and research. The most recent data from the NZFCD is published by an open access version of the FOODfiles and its subset of The Concise New Zealand Food Composition Tables and searchable Nutrient Information Panel Database (NIP) on the [www.foodcomposition.co.nz](http://www.foodcomposition.co.nz) in March 2015.

### **Improve evidence basis**

The current FOODfiles 2014 contains 2574 foods, of which ca. 70% are New Zealand Source. There are ca. 400,000 values in total in the unabridged FOODfiles 2014, and total number of 360 food components. Of these total values, 67% are derived by direct NZ analysis or calculated from analytical values.

A complete set of food composition data for 84 core components have been updated in the current FOODfiles for approximately 600 food records since 2010. The differences in nutrient composition due to fortification and ingredients are captured. Density and CSM provide the means by which volumes can be converted into weights to calculate nutrient data on a per serving basis.

### **Program implementation**

The disseminated NZFCD products data quality control is implemented by following FAO/INFOODS guidelines and Food Standard Australia and New Zealand (FSANZ) guideline 1.2.8 for nutrition labelling. They were documented in the New Zealand FOODfiles Manual and this also provides technical

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information for users and information for computing personnel involved in setting up database management systems for users of food composition data.

NZFCD programme is implemented based on the NZFCD – Procedures Manual developed by us. The purpose of this manual is to establish procedures and quality assurance requirements for collecting, preparing, and analysing a representative sample for the food composition of the foods. Also provides the project management to ensure uniform and consistent procedures.

### **Success**

The NZFCD program is receiving continuous funding from the Ministry of Health (New Zealand) since 1980, and 19 upgrades of the FOODfiles have been released with increased number of NZ analytical values. Using the current technology, FOODfiles available by CD-Rom was upgraded to the open access download files on the website: [www.foodcomposition.co.nz](http://www.foodcomposition.co.nz). The website has more than 4,000 user's registration and accessed from worldwide over 100 countries.

Data from the NZFCD are used in the national nutrition survey in recent 2008/09 NZ Adult Nutrition Survey (ANS) to convert dietary intake data into nutrient intake ([www.health.govt.nz](http://www.health.govt.nz)).

An interface, the Food Information Management System (FIMS) has moved forward with many new features. One important feature is recipe calculation program using the "Mixed method" where the Nutrition Retention Factors is applied at the individual ingredient level and Yield Factors (water and fat) applied at the recipe level. This program has been used to generate more than 4500 recipes for the ANS.

### **Source**

Sivakumaran S, Huffman L, Sivakumaran S 2015. The Concise New Zealand Food Composition Tables, 11<sup>th</sup> Edition 2014. The New Zealand Institute for Plant & Food Research Limited and Ministry of Health [www.foodcomposition.co.nz/concise-tables](http://www.foodcomposition.co.nz/concise-tables).

The New Zealand Institute for Plant & Food Research Limited 2015. New Zealand Food Composition Database: New Zealand FOODfiles 2014 Version 01. The New Zealand Institute for Plant & Food Research Limited and Ministry of Health. [www.foodcomposition.co.nz/foodfiles](http://www.foodcomposition.co.nz/foodfiles).

Sivakumaran S, Huffman L, Gilmore Z, Sivakumaran S 2015. New Zealand FOODfiles 2014 manual. The New Zealand Institute for Plant & Food Research Limited. [www.foodcomposition.co.nz/foodfiles](http://www.foodcomposition.co.nz/foodfiles).