CANADIAN NUTRIENT FILE

compilation of Canadian food composition data

2015
DATABASE STRUCTURE

Canada

Nutrition Research Division
Food Directorate
Health Products and Food Branch
Health Canada

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INTRODUCTION

The downloadable files comprising the Canadian Nutrient File database are relational files available in two formats: Excel files and csv files. In order to view and utilize these files one must both own and be familiar with a database management software program or a spreadsheet program of sufficient capacity.

To save space and speed up downloads; the files are zipped into one large file with a file name ending with '.exe'. This is the file that is downloaded to whatever directory the user specifies. After downloading, go to that directory and double click on the exe file; this will extract the many files comprising the CNF database.

Some database management programs require you to "open" these files into their programs while others require them to be "Imported". Once they are imported, the corresponding tables can be joined using the common fields indicated in the File Relationships section below.

NEW FOR THIS EDITION

1- New food code

Over time, CNF users tend to get used to the numeric code associated to certain foods, and start to refer to these foods using their code. In the CNF database, this familiar, unique food code (FD_CODE in the FOOD_NAME table) is not the primary key.

All primary key fields end with _ID (FC_ID) in the CNF database in order to be easily identified.

FOOD CODE FIELD – STRUCTURE AND ROLES

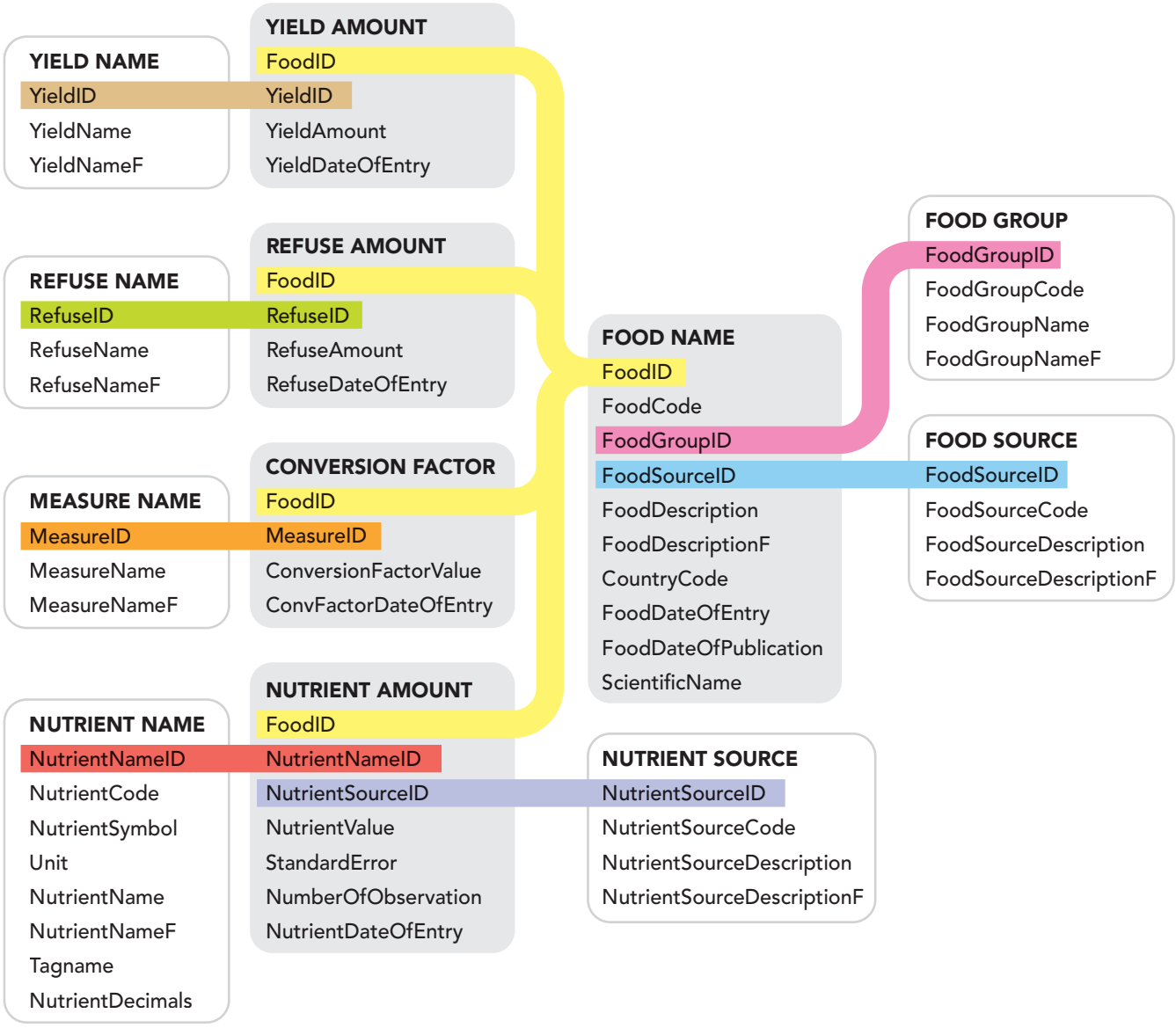
FIELD	DESCRIPTION OF FIELD	NEW ROLE IN THE DATABASE	WILL APPEAR IN THE WEB SEARCH APPLICATION
FoodID	Food ID field or food identifier	This is the primary key and the link for joining related tables	no
Food code	Food code	This is the user food code	yes

It is recommended that the Food ID and other primary keys be used only to link tables and that the Food Code be displayed and used for searches.

Remember that all of the nutrient data is stored per 100 g of the food. If you want to manipulate the data to display weights per portion, this can be done through some sophisticated calculated field programming.

If you are not familiar with these terms you may want to buy a nutrient analysis software program which features 2015 CNF data.

2015 FILE RELATIONSHIPS



DESCRIPTION OF FILES

NAME	FILE NAME	FILE DESCRIPTION
Food name	FOOD NAME	This is a principal file. It stores information about each food in the database. It contains a description of each food in English and French as well as dates and comments.
Nutrient amount	NUTRIENT AMOUNT	**This is the main file.** It uses information (by linking) from the food name table (among others) to identify which nutrients and amounts are recorded for that food.
Conversion factor	CONVERSION FACTOR	This is a principal file. This file contains portion size conversion factors. The conversion factors are food specific multipliers by which the nutrient values for each food may be multiplied to give the nutrients in described portions.
Refuse amount	REFUSE AMOUNT	This is a principal file. This file contains the percent of refuse, or inedible portion, for each food.
Yield amount	YIELD AMOUNT	This is a principal file. This file contains the yield from refuse and/or cooking losses assigned to certain foods. These yields are most often used for food inventory purposes.
Food group	FOOD GROUP	This file is a support or "list" table that is used to link to the food name table. It contains a list of 23 different group headings (in English and French) based on similar characteristics of the foods.
Food source	FOOD SOURCE	This file is a support or "list" table that is used to link to the food name table. It contains a list of several food sources (in English and French) that foods can be grouped on.
Nutrient name	NUTRIENT NAME	This file is a support or "list" table that contains the list of nutrients (in English and French) used in the NT_AMT file, with which it is linked.
Nutrient source	NUTRIENT SOURCE	This file is a support or "list" table that is used to link to the nutrient amount file. It contains a list of several sources and/or types of nutrient data (in English and French).
Measure	MEASURE NAME	This file is a support or "list" table that is used to link to the conv fac table. It contains a list of measures (in English and French).
Refuse name	REFUSE NAME	This file is a support or "list" table that is used to link to the refuse table. It contains a list of refuse types.
Yield name	YIELD NAME	This file is a support or "list" table that is used to link to the yield table. It contains a list of yield types or yield descriptions (in English and French).

PRINCIPAL FILES

I. Food name file

N = numeric - # of characters / # of decimals (if decimal)
T = text
D = date
n/a = not applicable

File name: Food name

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodID	N	11	Sequential number generated by the database identifying the food records. This is the primary key	nutrient amount conversion factor yield amount refuse amount
FoodCode	N	8	Identifier code for the foods. In the 2007b version this was the FD_C	n/a
FoodGroupID	N	15	Sequential number generated by the database for the food groups	food group
FoodSourceID	N	15	Sequential number generated by the database for the food sources.	food source
FoodDescription	T	255	Complete food name in English	n/a
FoodDescriptionF	T	255	Complete food name in French	n/a
CountryCode	N	20	Corresponds to the USDA NDB code	n/a
FoodDateOfEntry	D	yyyy/mm/dd	Date the food name data was entered into the database	n/a
FoodDateOfPublication	D	yyyy/mm/dd	Date the food name data was originally published	n/a
ScientificName	T	100	Scientific name of the food	n/a

II. Nutrient Amount File

File name: Nutrient Amount

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodID	N	8	Sequential number generated by the database identifying the food records	food name
NutrientNameID	N	4	Sequential number generated by the database for the nutrient names	nutrient name
NutrientValue	N	12/5	Mean value in 100g, edible portion. (The number of decimal places does not reflect the accuracy of the data.)	n/a
StandardError	N	8/4	Standard error of the mean	n/a
NumberOfObservations	N	6	Number of samples	n/a
NutrientSourceID	N	15	Identifier code generated by the database for the nutrient source	nutrient source
NutrientDateEntry	D	yyyy/mm/dd	Date the data was entered into the database	n/a

III. Conversion factor file

File name: Conversion factor

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodID	N	8	Sequential number generated by the database identifying the food records	food name
MeasureID	N	10	Sequential number generated by the database for the measure descriptions	measure name
ConversionFactorValue	N	10	The factor by which one would multiply the nutrient per 100g to obtain nutrient amounts per the measure described (the weight of that food in the measure described divided by 100)	n/a
ConvFactorDateOfEntry	D	yyyy/mm/dd	Date the data was entered into the database	n/a

IV. Refuse amount file

File name: Refuse amount

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodID	N	8	Sequential number generated by the database identifying the food records	food name
RefuseID	N	10	Sequential number generated by the database for the refuse descriptions	refuse name
RefuseAmount	N	9/5	Percent refuse	n/a
RefuseDateOfEntry	D	yyyy/mm/dd	Date the data was entered into the database	n/a

V. Yield amount file

File name: Yield amount

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodID	N	8	Sequential number generated by the database identifying the food records.	food name
YieldID	N	10	Sequential number generated by the database for the yield descriptions	yield name
YieldAmount	N	9/5	Yield from refuse and/or cooking losses	n/a
YieldDateOfEntry	D	yyyy/mm/dd	Date the data was entered into the database	n/a

SUPPORT FILES

A. Food group file

N = numeric - # of characters / # of decimals (if decimal)
T = text
D = date
n/a = not applicable

File name: Food group

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodGroupID	N	15	Sequential number generated by the database for the food groups	food name
FoodGroupCode	N	15	Identifier code for the Canadian Nutrient File food groups. There are 23 different CNF food groups	n/a
FoodGroupName	T	200	Food group name in English	n/a
FoodGroupNameF	T	200	Food group name in French	n/a

B. Food source file

File name: Food source

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
FoodSourceID	N	15	Sequential number generated by the database for the food sources	food name
FoodSourceCode	N	15	Identifier code for the food sources. Food sources give an indication as to Canadian content	n/a
FoodSourceDescription	T	200	Food Source description in English	n/a
FoodSourceDescriptionF	T	200	Food Source description in French	n/a

C. Nutrient name file

File name: Nutrient name

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
NutrientNameID	N	4	Sequential number generated by the database for the nutrient names	nutrient amount
NutrientCode	N	15	Identifier code for nutrient name descriptions	n/a
NutrientSymbol	T	10	Nutrient symbol or abbreviation of the nutrients. They may differ from international nomenclature	n/a
Unit	T	8	Unit of measure (e.g., mg, g, mcg)	n/a
NutrientName	T	200	Nutrient name in English	n/a
NutrientNameF	T	200	Nutrient name in French	n/a
Tagname	T	20	International Network of Food Data Systems (INFOODS) Tagnames. A unique Abbreviation for a food component developed by INFOODS to aid in the interchange of data.	n/a
NutrientDecimals	N	15	Number of decimal places used in the rounding of the nutrient value	n/a

D. Nutrient source file

File name: Nutrient source

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
NutrientSourceID	N	15	Sequential number generated by the database for the nutrient sources	nutrient amount
NutrientSourceCode	N	15	Identifier code for nutrient source descriptions	n/a
NutrientSourceDescription	T	200	Nutrient source description in English	n/a
NutrientSourceDescriptionF	T	200	Nutrient source description in French	n/a

E. Measure name file

File name: Measure name

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
MeasureID	N	10	Sequential number generated by the database for the measure descriptions	conversion factor
MeasureName	T	200	Measure description in English	n/a
MeasureNameF	T	200	Measure description in French	n/a

F. Refuse name file

File name: Refuse name

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
RefuseID	N	10	Sequential number generated by the database for the refuse descriptions	refuse amount
RefuseName	T	200	Refuse description in English	n/a
RefuseNameF	T	200	Refuse description in French	n/a

G. Yield name file

File name: Yield name

FIELD NAME	FIELD TYPE	SIZE	FIELD DESCRIPTION	LINKS
YieldID	N	10	Sequential number generated by the database for the yield descriptions	yield amount
YieldName	T	200	Yield description in English	n/a
YieldNameF	T	200	Yield description in French	n/a

UPDATE FILES LIST

For the 2015 version we are offering update files that track records that have been changed, added or deleted since the release of the 2010 version of the CNF. These files have the same field name structure as the files of the main database.

A. Added files

FILE NAME	FILE DESCRIPTION	COMMENT
FOOD NAME ADD	Added food names	no comments
NUTRIENT NAME ADD	Added nutrient names	no comments
NUTRIENT AMOUNT ADD	Added nutrient amounts	Includes nutrient values added to already existing foods as well as new foods
MEASURE NAME ADD	Added measures	no comments
CONVERSION FACTOR ADD	Added conversion factors	Includes conversion factors values added to already existing foods as well as new foods
REFUSE NAME ADD	Added refuse names	no comments
REFUSE AMOUNT ADD	Added refuse	no comments
YIELD NAME ADD	Added yield names	no comments
YIELD AMOUNT ADD	Added yields	Includes yields added to already existing foods as well as new foods
FOOD SOURCE ADD	Added food sources	no comments
NUTRIENT SOURCE ADD	Added nutrient sources	no comments

These files are in the same format as the principal or support files.

B. Changed files

FILE NAME	FILE DESCRIPTION	COMMENT
FOOD NAME CHANGE	Changed food names	no comments
NUTRIENT NAME CHANGE	Changed nutrient names	no comments
NUTRIENT AMOUNT CHANGE	Changed nutrient values	no comments
MEASURE NAME CHANGE	Changed measures	no comments
CONVERSION FACTOR CHANGE	Changed conversion factor values	no comments
YIELD NAME CHANGE	Changed yield names	no comments
YIELD AMOUNT CHANGE	Changed yield values	no comments
REFUSE NAME CHANGE	Changed refuse names	no comments
REFUSE AMOUNT CHANGE	Changed refuse values	no comments
FOOD SOURCE CHANGE	Changed food source descriptions	no comments

If the values in any fields have changed, the entire record is included for that file. These files are in the same format as the principal or support files. Unfortunately, simple changes to the wording or spelling of the food names were not captured in the food change update file for this edition.

C. Deleted files

FILE NAME	FILE DESCRIPTION	COMMENT
FOOD NAME DELETE	Deleted food names	no comments
NUTRIENT AMOUNT DELETE	Deleted nutrient values	Includes nutrient values that were removed from the database (including those which accompany a deleted food
CONVERSION FACTOR DELETE	Deleted conversion factor values	Includes conversion factors that accompany a deleted food (including those which accompany a deleted food
YIELD AMOUNT DELETE	Deleted yield values	no comments
REFUSE AMOUNT DELETE	Deleted refuse values	no comments
NUTRIENT NAME DELETE	Deleted nutrient names	no comments

UPDATE FILES – TABLES

ADD FILES		CHANGE FILES		DELETE FILES	
Add table name	**Field name**	**Change table name**	**Field name**	**Delete table name**	**Field name**
Food name add	FoodID	Food name change	FoodID	Food name delete	FoodID
	FoodCode		FoodCode		FoodCode
	FoodDescription		FoodDescription		FoodDescription
	FoodDescriptionF		FoodDescriptionF		FoodDescriptionF
	FoodDateOfEntry		FoodDateOfEntry		FoodDateEntry
	FoodDateOfPublication		FoodDateOfPublication		FoodDateEnd
	FoodGroupID		FoodGroupID		FoodGroupID
	FoodSourceID		FoodSourceID		FoodSourceID
	CountryCode		CountryCode		CountryCode
	ScientificName		ScientificName		ScientificName
Food source add	n/a	Food source change	FoodSourceID	Food source delete	n/a
			FoodSourceCode		
			FoodSourceDescription		
			FoodSourceDescriptionF		
Food group add	FoodGroupID	Food group change	n/a	Food group delete	n/a
	FoodGroupCode				
	FoodGroupName				
	FoodGroupNameF				
Nutrient amount add	FoodID	Nutrient amount change	FoodID	Nutrient amount delete	FoodID
	NutrientNameID		NutrientNameID		NutrientNameID
	NutrientValue		NutrientValue		NutrientValue
	StandardError		StandardError		StandardError
	NumberOfObservations		NumberOfObservations		NumberOfObservations
	NutrientDateOfEntry		NutrientDateOfEntry		NutrientDateEnd
	NutrientSourceID		NutrientSourceID		
Nutrient name add	NutrientNameID	Nutrient name change	NutrientNameID	Nutrient name delete	NutrientNameID
	NutrientNameCode		NutrientNameCode		NutrientNameCode
	NutrientSymbol		NutrientSymbol		NutrientName
	Unit		Unit		NutrientNameF
	NutrientName		NutrientName		
	NutrientNameF		NutrientNameF		
	Tagname		Tagname		
	NutrientDecimals		NutrientDecimals		

ADD FILES		CHANGE FILES		DELETE FILES	
Add table name	**Field name**	**Change table name**	**Field name**	**Delete table name**	**Field name**
Nutrient source add	NutrientSourceID	Nutrient source change	n/a	Nutrient source delete	NutrientSourceID
	NutrientSourceCode				NutrientSourceCode
	NutrientSourceDescription				NutrientSourceDescription
	NutrientSourceDescriptionF				NutrientSourceDescriptionF
Conversion factor add	FoodID	Conversion factor change	FoodID	Conversion factor delete	FoodID
	MeasureID		MeasureID		MeasureID
	ConversionFactorValue		ConversionFactorValue		ConversionFactorValue
	ConvFactorDateOfEntry		ConvFactorDateOfEntry		ConvFactorDateEnd
Refuse amount add	FoodID	Refuse amount change	FoodID	Refuse amount delete	FoodID
	RefuseID		RefuseID		RefuseID
	RefuseAmount		RefuseAmount		RefuseAmount
	RefuseDateOfEntry		RefuseDateOfEntry		RefuseDateOfEntry
Yield amount add	FoodID	Yield amount change	FoodID	Yield amount delete	FoodID
	YieldID		YieldID		YieldID
	YieldAmount		YieldAmount		YieldAmount
	YieldDateOfEntry		YieldDateOfEntry		YieldDateOfEntry
Measure name add	MeasureID	Measure name change	MeasureID	Measure name delete	n/a
	MeasureName		MeasureName		
	MeasureNameF		MeasureNameF		
Refuse name add	RefuseID	Refuse name change	RefuseID	Refuse name delete	n/a
	RefuseName		RefuseName		
	RefuseNameF		RefuseNameF		
Yield name add	YieldID	Yield name change	n/a	Yield name delete	n/a
	YieldName				
	YieldNameF				

Although every attempt has been made to include all additions, changes and deletions to the CNF since the last release in these update files, the nature of this very large electronic database and the complex programming involved in editing, it is possible that some changes were not tracked accurately. It is recommended that one also downloads the entire database for reference.