

Composition of Selected Foods from West Africa

Barbara Stadlmayr, U Ruth Charrondiere, Paulina Addy, Babacar Samb, Victor N Enujiugha, Romaric G Bayili, Etel G Fagbohoun, Ifeyironwa Francisca Smith, Ismael Thiam, Barbara Burlingame (Editors)



The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these are patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

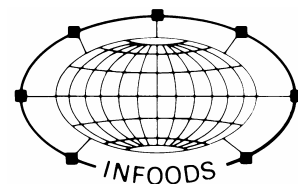
ISBN 978-92-5-106652-2

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to: copyright@fao.org or to Chief, Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy.

© FAO 2010

Composition of Selected Foods from West Africa

Barbara Stadlmayr, U Ruth Charrondiere, Paulina Addy, Babacar Samb, Victor N Enujiugha, Romaric G Bayili, Etel G Fagbohoun, Ifeyironwa Francisca Smith, Ismael Thiam, Barbara Burlingame (Editors)



Food and Agriculture
Organization of the United Nations
Rome 2010

Table of contents

Acknowledgement	v
Preface	vi
Introduction	vii
Food groups	vii
Definition and expression of nutrients	viii
Documentation and source of data	x
Food Composition Table	1
Index	37
References	41

Acknowledgment

The authors are very grateful to the West African Health Organization (WAHO) for providing funding for this compilation.

The West African Health Organization acknowledges the valuable efforts of FAO, Bioversity International and all stakeholders especially ROPPA and the ECOWAS Commission for Agriculture Environment and Water Resources, involved in very challenging work, aimed at providing long term solution to control food and nutrition security.

Preface

WAHO takes this opportunity to recognize and to reiterate the strong collaborative partnership between WAHO, the FAO/INFOODS/AFROFOODS and Bioversity International, within the framework of promoting foods from traditional food systems in order to improve nutrition and food security in West Africa.

The organizations recognize that there have been significant achievements towards accomplishing this objective but the challenge is still enormous. The economic and social situation in West Africa demands that we find local solutions to boost national development, while at the same time we need to think globally.

With the challenge of the double burden of malnutrition faced by most countries in the sub-region, intersectoral collaboration and interdisciplinary approaches are critical in the management and prevention of these challenges.

WAHO's collaboration with Bioversity International and FAO, which has now extended to ROPPA (Network of Farmers' and Agricultural Producers' Organisations of West Africa), Research and Training Institutions, the ECOWAS Commission for Agriculture Environment and Water Resources, NGOs, as well as donors, has provided a platform to pursue this regional initiative for the protection and the promotion of the biodiversity of West Africa.

The West African Health Organization expresses deep appreciation for the collaborative efforts of all its partners and calls for a redoubling of efforts in order to achieve the above stated objective of developing and applying local solutions to the problems of food and nutrition insecurity, micronutrient deficiency and diet related chronic diseases in West Africa.

This first step of data collected on the nutrient values of local foods is essential to support the agriculture sector and also will contribute to alleviate rural poverty and to achieve the MDGs.

Ismael Thiam
ECOWAS, WAHO

Introduction

The present work is a food composition table for West African Traditional Foods. These data represent the average values of the collected compositional data and is a subset of the archival database that was compiled from March to August 2010 from 7 countries (Benin, Burkina Faso, Ghana, Guinea, Niger, Nigeria and Senegal). Data sources included scientific papers, theses, university reports, as well as food composition databases. These data were supplemented by other sources of food composition data to complete the missing values, especially minerals and vitamins. It was intended to have no missing values but for some vitamins, especially vitamin A and E, data were not available and no sources were found from which to derive reliable data. In these cases, they were left blank.

Most of the collected data were for raw foods. Nutrient values of cooked foods were added; they often were calculated using the yield and nutrient retention factors from Bognar (2002). There was no attempt to compile recipes which could be done in a subsequent edition.

Altogether, data from more than 1500 food items were compiled, out of which 173 foods and 30 components were selected for this table. Whenever possible, data for foods described at the taxonomic level of variety were included.

The compilation was done using international standards for food composition and compilation, such as the INFOODS food component identifiers (Klensin et al., 1989), the FAO/INFOODS Compilation Tool (available at http://www.fao.org/infoods/software_en.stm) and the compilation process as outlined by Greenfield and Southgate (2003). The archival database with more detailed information on country level as well as on individual varieties, is available upon request from FAO, Bioversity International or WAHO/ECOWAS.

Food groups

The foods have been classified in the following food groups:

- 01 Cereals and cereal products
- 02 Starchy roots and tubers
- 03 Legumes and their products
- 04 Vegetables and their products
- 05 Fruits and their products
- 06 Nuts, seeds and their products
- 07 Meat and poultry and their products
- 08 Eggs and their products
- 09 Fish and their products
- 10 Milk and their products
- 11 Fat and oils
- 12 Beverages
- 13 Miscellaneous

The food codes are composed of the code of the food group and the food code within this group. The foods are arranged in alphabetic order within each food group.

Definition and expression of nutrients

All foods, including beverages and other liquids, are presented per 100 g edible portion.

The values per nutrient have been standardized and are expressed in fixed maximal number of decimal points, i.e. no decimal points were added but values with higher decimal points were truncated to the maximal number of decimal points as indicated in the COMPONENT sheet of the Compilation Tool.

The values reported are average values derived from foods with the same/similar description that have been compiled in the archival database.

Table 1 Nutrients, units and corresponding INFOODS component identifier (per 100 g edible portion)

Nutrient	Unit	Analytical/determination method	INFOODS component identifier
Edible portion	ratio		EDIBLE
Energy	kJ, kcal	Calculated according to standardized procedure (see below)	ENERG
Water	g	Drying	WATER
Protein	g	Calculated with nitrogen conversion factor from analysed total nitrogen (mostly Kjeldahl method)	PROT (formerly PROTNT)
Fat or if missing fat value for cereals, then [fat by Soxhlet]	g	Mixed solvent extraction or [Soxhlet extraction for cereals]	FAT or [FATCE]
Available carbohydrates by difference, or if missing fibre value, then [total carbohydrates by difference is indicated]	g	100 -(Water + Protein +Fat + Ash +Fibre + Alcohol) or [100 – (Water + Protein +Fat + Ash + Alcohol)]	CHOAVLDF or [CHOCDF]
Dietary fibre or if missing dietary fibre value, then [crude fibre]	g	AOAC Prosky method or [Weende method]	FIBTG or [FIBC]
Ash	g	*	ASH
Calcium	mg	*	CA
Iron	mg	*	FE
Magnesium	mg	*	MG
Phosphorus	mg	*	P
Potassium	mg	*	K
Sodium	mg	*	NA
Zinc	mg	*	ZN
Copper	mg	*	CU
Selenium	mcg	*	SE
Iodine	mcg	*	ID
Vitamin A (expressed in retinol equivalents)	mcg	*	VITA
Retinol	mcg	*	RETOL
Beta-carotene equivalents	mcg	*	CARTBEQ
Vitamin D	mcg	*	VITD
Vitamin E (in tocopherol equivalents)	mg	*	VITE
Thiamin	mg	*	THIA
Riboflavin	mg	*	RIBF
Niacin	mg	*	NIA
Vitamin B ₆	mg	*	VITB6
Folate	mcg	*	FOL
Vitamin B ₁₂	mcg	*	VITB12
Vitamin C	mg	*	VITC

* mostly not indicated.

Energy value (kJ, kcal)

The metabolized energy values of all foods are given in both kilojoules (kJ) and kilocalories (kcal). The energy values have been calculated based on protein, fat, available carbohydrates, fibre and alcohol applying the energy conversion factors shown in Table 2.

Table 2: Metabolized energy conversion factors

	kJ/g	kcal/g
Protein	17	4
Fat	37	9
Available/total carbohydrate	17	4
Fibre *	8	2
Alcohol **	29	7

* in case only a total carbohydrate value was available, no energy values was attributed to the fibre value.

** The alcohol content is indicated for alcoholic beverages in the food name.

Water (g)

Water values are from different sources and may be derived from different drying methods.

Protein (g)

In the archival database, different conversion factors have been applied. For the present version however, the protein conversion factor 6.25 has been used for ease of standardization, or when the nitrogen value was not available, the protein value was taken as it is from the original source. In most cases, the Jones factors were used; in some cases, no identification was found.

Fat (g)

The fat value for the majority of the foods was derived by using the mixed solvent extractions, which includes triglycerides, phospholipids, sterols and related compounds. For some foods, also values from continuous extraction (Soxhlet method) were used. For all foods except the cereals, Soxhlet values are comparable with other fat determination methods, and were therefore used without precaution. However, Soxhlet values were avoided (FATCE) for cereals because for this group this method results in lower fat values if no previous acid extraction was performed. In few foods in the cereal group, only Soxhlet values were available, mostly without indication of previous acid extraction, and are marked in [].

Carbohydrates (g)

As few analytical data were available, it was decided to express carbohydrates as 'available carbohydrates by difference'. In cases where crude fibre was used in the calculation, the value is indicated in italics. In cases where fibre values were missing, the value for 'total carbohydrates by difference' is indicated in []. The following formulas were applied:

Available carbohydrates by difference: $100 - (\text{Water} + \text{Protein} + \text{Fat} + \text{Ash} + \text{Fibre} + \text{Alcohol})$

Total carbohydrates by difference: $100 - (\text{Water} + \text{Protein} + \text{Fat} + \text{Ash} + \text{Alcohol})$

Dietary fibre (g)

The most frequently recommended method is total dietary fibre by AOAC Prosky method. This is a mixture of non-starch polysaccharides, lignin, resistant starch and resistant oligosaccharides.

In a few cases, only values for non-starch polysaccharide (also called Englyst fibre), Southgate fibre, or for a mixture of non-starch polysaccharides, lignin and some resistant starch were available. They were taken as an approximation of total dietary fibre as determined by AOAC Prosky method.

In cases, where only crude fibre was available, it is marked in [].

Ash (g) and minerals (mg or mcg)

Ash and selected mineral values are included: calcium, iron, magnesium, phosphor, potassium, sodium, zinc, copper, selenium and copper.

Vitamin A and Carotene (mcg)

- Vitamin A (mcg): Total vitamin A activity expressed in mcg retinol equivalent (RE) = mcg retinol + 1/6 mcg β -carotene + 1/12 mcg α -carotene + 1/12 mcg β -cryptoxanthin.
- Retinol (mcg): is normally present only in foods of animal origin.
- Beta-carotene expressed in β -carotene equivalents (mcg): mcg β -carotene equivalents = 1 mcg β -carotene + 0.5 mcg α -carotene + 0.5 mcg β -cryptoxanthin

Vitamin D

In most sources, no definition of vitamin D was provided, nor an analytical method. Ideally, this values should be the sum of vitamin D₂ and D₃.

Vitamin E

In most sources, no definition of vitamin E was provided, nor an analytical method. However, vitamin E is traditionally expressed in mg alpha tocopherol equivalents: mg α -tocopherol + 0.4 mg β -tocopherol + 0.1 mg γ -tocopherol + 0.01 mg δ -tocopherol + 0.3 mg α -tocotrienol + 0.05 mg β -tocotrienol + 0.01 mg γ -tocotrienol. This formula is the most used one.

Niacin (mg)

For most foods, the analytical method used for niacin determination was not reported. It is assumed that most of the niacin values are for preformed niacin values, **not** niacin equivalent values.

Thiamin, riboflavin, folate, vitamin B₆ and vitamin B₁₂

For the majority of the foods, no specific analytical method to determine the their contents was reported. It is however assumed that most values would have been analysed using microbiological methods and/or HPLC.

Vitamin C

Vitamin C values include ascorbic acid and dehydroascorbic acid, but often titrimetry was used which only measures ascorbic acid. Both expressions are comparable for raw foods.

Documentation and source of data

For each food, the sources of the data are indicated by a bibliographic codes, which are included in the reference list.

Whenever possible, the standard derivation (SD) was calculated, i.e. when the number of data points was 3 or above. If two data points were available, the minimum (min) and maximum (max) values were listed. For each value, the number of data points is indicated (n).

Symbols and abbreviations used in the Tables

Tr Trace

[] for alternative analytical method or expression

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
01 Cereals and cereal products									
01_001	Fonio, white, whole grain, raw	1E, 4E, 3B, 11E	1.00	(339)1433	11.1	7.0	3.1	67.1	[7.4]
	SD or min-max n				0.1 3	0.4 4	0.2 4		1
01_002	Fonio, black, whole grain, raw	11E	1.00	(353)1492	10.3	8.9	3.0	69.4	[6.2]
	n				1	1	1		1
01_003	Fonio, white, whole grain, boiled	calc. from fonio white, whole grain raw	1.00	(141)597	63.0	2.9	1.3	27.9	[3.0]
01_004	Maize, white, whole, dried, raw	4E, 11E, 3E, 16V, 3P, 3B	1.00	(363)1539	10.9	9.2	3.8	72.3	[1.5]
	SD or min-max n				0.8 6	1.9 7	0.8 7		1.3-1.8 2
01_005	Maize, white, whole, boiled	calc. from maize, white, whole, dried, raw	1.00	(139)592	65.7	3.5	1.5	27.8	[0.6]
01_006	Maize, yellow, dried, raw	13V, 3E, 4E, 11E, 5B, US22		(354)1494	10.9	9.4	4.3	64.6	9.7
	SD or min-max n				0.4 5	0.9 5	0.6 5		1
01_007	Maize, yellow, boiled	calc. from maize, yellow, raw	1.00	(136)575	65.7	3.6	1.6	24.9	3.7
01_008	Maize, Gougba variety, dried, raw	5E, calc. from maize, white, raw	1.00	(353)1498	13.1	8.7	[2.5]	73.2	[1.5]
01_009	Maize, Gbaévé variety, dried, raw	5E, calc. from maize, white, raw	1.00	(355)1506	13.0	8.1	[3.0]	73.3	[1.4]
01_010	Maize, DMR-ESR-W variety, dried, raw	5E, calc. from maize, white, raw	1.00	(359)1520	13.2	8.8	[3.9]	71.3	[1.7]
01_011	Maize, POZA - RICA 7843 - SR variety, dried, raw	5E, calc. from maize, white, raw	1.00	(352)1490	13.4	9.0	[2.6]	72.0	[1.9]
01_012	Maize, TZPB-SR variety, dried, raw	5E, calc. from maize, white, raw	1.00	(358)1517	14.0	8.8	[4.5]	69.7	[1.9]
01_013	Maize, Gnonli variety, dried, raw	5E, calc. from maize, white, raw	1.00	(352)1491	13.6	7.6	[2.4]	74.5	[0.7]
01_014	Maize, combined varieties, raw	5E, calc. from maize, white, raw	1.00	(355)1504	13.4	8.5	[3.2]	72.3	[1.5]
	SD or min-max n				0.4 6	0.5 6	0.9 6		0.5 6
01_015	Millet, whole grain, raw	3B, 4E, DK7	1.00	(345)1454	12.0	9.9	4.1	61.9	10.6
	SD or min-max n					9.4-10.4	4.0-4.1		1
01_016	Millet, whole grain, boiled	calc. from pearl millet whole grain, raw	1.00	(144)606	63.3	4.1	1.7	25.8	4.4
01_017	Pearl millet, raw	2E, 2R, DK7		(365)1539	8.5	8.3	[5.3]	65.8	10.6
	SD or min-max n				8.0-9.0 2	7.6-8.9 2	4.9-5.7 2		1
01_018	Pearl millet, variety ikmv 8201, raw	20R, calc. from pearl millet, raw	1.00	(382)1611	7.5	11.0	7.4	63.3	9.5
01_019	Pearl millet, variety ikmp 1, raw	20R, calc. from pearl millet, raw	1.00	(370)1562	10.1	10.2	6.9	62.8	8.1
01_020	Pearl millet, variety ikmp 2, raw	20R, calc. from pearl millet, raw	1.00	(373)1571	9.4	9.7	7.1	62.9	9.1
01_021	Pearl millet, variety ikmp 3, raw	20R, calc. from pearl millet, raw	1.00	(391)1645	6.7	15.5	9.0	56.4	11.3
01_022	Pearl millet, variety ikmp 4, raw	20R, calc. from pearl millet, raw	1.00	(383)1610	9.1	14.4	9.0	56.1	9.7
01_023	Pearl millet, variety ikmp 5, raw	20R, calc. from pearl millet, raw	1.00	(398)1673	6.0	15.2	10.2	55.1	12.4
01_024	Pearl millet, variety ikmp 6, raw	20R, calc. from pearl millet, raw	1.00	(376)1584	8.8	17.1	6.9	57.2	8.4

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
01 Cereals and cereal products												
01_001	Fonio, white, whole grain, raw	4.3	40	9.4	430	191			1.5	0.44		
SD or min-max			1.5	1.75		0						
n		1	4	4	1	3			1	1		
01_002	Fonio, black, whole grain, raw	2.2		10.0		234						
n		1		1		1						
01_003	Fonio, white, whole grain, boiled	1.8	17	3.9	179	76			0.6	0.18		
01_004	Maize, white, whole, dried, raw	2.2	30	3.2	85	254	380	50	1.4	0.18	16	
SD or min-max		1.1	21	0.9		42	35	0				
n		4	7	7	1	5	3	3	1	1	1	
01_005	Maize, white, whole, boiled	0.8	12	1.2	33	93	117	15	0.5	0.07	6	
01_006	Maize, yellow, dried, raw	1.1	14	4.2	121	242	355	6	1.7	0.24	12	3
SD or min-max		0.1	5	2	91-150	60	270-440					
n		3	4	4	2	5	2	1	1	1	1	1
01_007	Maize, yellow, boiled	0.4	5	1.6	46	88	109	2	0.6	0.09	5	1
01_008	Maize, Gougba variety, dried, raw	1.0	36	3.8	101	145	453	60	1.7	0.21	18	
01_009	Maize, Gbaévé variety, dried, raw	1.2	36	3.8	101	145	452	59	1.7	0.21	18	
01_010	Maize, DMR-ESR-W variety, dried, raw	1.1	36	3.9	103	145	459	60	1.7	0.22	19	
01_011	Maize, POZA - RICA 7843 - SR variety, dried, raw	1.0	37	3.9	104	145	465	61	1.7	0.22	19	
01_012	Maize, TZPB-SR variety, dried, raw	1.1	39	4.1	109	145	487	64	1.8	0.23	20	
01_013	Maize, Gnonli variety, dried, raw	1.2	37	4.0	106	145	473	62	1.7	0.22	19	
01_014	Maize, combined varieties, raw	1.1	37	3.9	104	145	465	61	1.7	0.22	19	
SD or min-max		0.1	1	0.1	3	0	13	2	0.5	0.01	0.5	
n		6	6	6	6	6	6	6	6	6	6	
01_015	Millet, whole grain, raw	1.6	24	15.4	430	286			1.5	0.44		
SD or min-max			22-26	10.0-20.7								
n		1	2	2	1	1		1	1	1		
01_016	Millet, whole grain, boiled	0.7	10	6.4	179	113			0.6	0.18		
01_017	Pearl millet, raw	1.6	19	14.3	97	207	401		2.7	0.45		
SD or min-max		1.4-1.9		7.6-20.9					2.3-3.1			
n		2	1	2	1	1	1		2			
01_018	Pearl millet, variety ikmv 8201, raw	1.4	17	12.6	85	182	353		2.4	0.44		
01_019	Pearl millet, variety ikmp 1, raw	1.9	23	16.9	115	245	475		3.2	0.59		
01_020	Pearl millet, variety ikmp 2, raw	1.8	21	15.8	107	229	443		3.0	0.55		
01_021	Pearl millet, variety ikmp 3, raw	1.3	15	11.2	76	162	314		2.1	0.39		
01_022	Pearl millet, variety ikmp 4, raw	1.7	20	15.2	103	220	427		2.9	0.53		
01_023	Pearl millet, variety ikmp 5, raw	1.1	13	10.0	68	145	281		1.9	0.35		
01_024	Pearl millet, variety ikmp 6, raw	1.7	20	14.8	101	215	416		2.8	0.52		

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi. (mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
01 Cereals and cereal products													
01_001	Fonio, white, whole grain, raw	0		0			0.25	0.10	1.9				0
	SD or min-max						0.02	0.0	0.3				
	n	1		1			4	4	3				1
01_002	Fonio, black, whole grain, raw												
	n												
01_003	Fonio, white, whole grain, boiled	0		0			0.05	0.03	0.6				0
01_004	Maize, white, whole, dried, raw	3		19	0		0.32	0.10	1.9	0.20	15	0	8
	SD or min-max	1-5		5-32			0.08	0.01	0.30				4
	n	2		2	1		6	6	6	1	1	1	4
01_005	Maize, white, whole, boiled	1		6	0		0.06	0.03	0.6	0.04	4	0	2
01_006	Maize, yellow, dried, raw	101	0	604	0	6.60	0.32	0.12	1.7	0.39	26	0	4
	SD or min-max	17-185		100-1180			0.02	0.05	0				
	n	2	1	2	1	1	3	3	2	1	1	1	2
01_007	Maize, yellow, boiled	35	0	209	0	2.54	0.06	0.03	0.5	0.07	7	0	1
01_008	Maize, Gougba variety, dried, raw				0		0.38	0.12	2.3	0.24	18	0	9
01_009	Maize, Gbaévé variety, dried, raw				0		0.38	0.12	2.3	0.24	18	0	9
01_010	Maize, DMR-ESR-W variety, dried, raw				0		0.39	0.12	2.3	0.24	18	0	9
01_011	Maize, POZA - RICA 7843 - SR variety, dried, raw				0		0.39	0.12	2.4	0.24	18	0	9
01_012	Maize, TZPB-SR variety, dried, raw				0		0.41	0.13	2.5	0.26	19	0	10
01_013	Maize, Gnonli variety, dried, raw				0		0.40	0.12	2.4	0.25	19	0	10
01_014	Maize, combined varieties, raw				0		0.39	0.12	2.4	0.24	18	0	9
	SD or min-max				0		0.01	0.01	0.1	0.01	1	0	1
	n				6		6	6	6	6	6	6	6
01_015	Millet, whole grain, raw	0	0	0	0	0.05	0.30	0.18	1.7	1.03	41		2
	SD or min-max						0.29-0.30	0.13-0.22	0				0-3
	n	1	1	1	1		2	2	2	1	1		2
01_016	Millet, whole grain, boiled	0	0	0	0	0.02	0.06	0.05	0.5	0.22	12		0
01_017	Pearl millet, raw	0	0	0	0	0.06	0.21	0.13	1.2	0.73	29	0	1
	SD or min-max												
	n	1	1	1	1		1	1	1	1	1	1	1
01_018	Pearl millet, variety ikmv 8201, raw	0	0	0	0	0.09	0.19	0.12	1.1	0.64	26		1
01_019	Pearl millet, variety ikmp 1, raw	0	0	0	0	0.08	0.25	0.16	1.4	0.87	35		2
01_020	Pearl millet, variety ikmp 2, raw	0	0	0	0	0.08	0.23	0.15	1.3	0.81	32		2
01_021	Pearl millet, variety ikmp 3, raw	0	0	0	0	0.11	0.17	0.11	0.9	0.57	23		1
01_022	Pearl millet, variety ikmp 4, raw	0	0	0	0	0.11	0.23	0.14	1.3	0.78	31		2
01_023	Pearl millet, variety ikmp 5, raw	0	0	0	0	0.12	0.15	0.09	0.9	0.51	21		1
01_024	Pearl millet, variety ikmp 6, raw	0	0	0	0	0.08	0.22	0.14	1.3	0.76	30		1

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
01 Cereals and cereal products									
01_025	Pearl millet, variety ikmp 7, raw	20R, calc. from pearl millet, raw	1.00	(385)1623	6.4	12.5	6.8	64.0	9.2
01_026	Pearl millet, variety ikmp 8, raw	20R, calc. from pearl millet, raw	1.00	(390)1642	6.0	9.0	7.2	67.9	8.8
01_027	Pearl millet, variety ikmp 9, raw	20R, calc. from pearl millet, raw	1.00	(391)1646	6.5	11.4	8.4	62.3	10.1
01_028	Pearl millet, variety ikmp 10, raw	20R, calc. from pearl millet, raw	1.00	(370)1559	10.5	9.3	7.8	60.8	9.6
01_029	Pearl millet, variety ikmp 11, raw	20R, calc. from pearl millet, raw	1.00	(375)1578	9.2	8.7	7.7	62.6	10.1
01_030	Pearl millet, variety ikmp 12, raw	20R, calc. from pearl millet, raw	1.00	(387)1629	6.6	11.2	7.4	63.9	9.6
01_031	Pearl millet, variety ikmp 13, raw	20R, calc. from pearl millet, raw	1.00	(388)1635	6.6	10.9	7.6	64.5	9.1
01_032	Pearl millet, combined varieties, raw	20R, calc. from pearl millet, raw	1.00	(383)1612	7.8	11.9	7.8	61.4	9.6
SD or min-max n					1.6 14	2.7 14	1.0 14		1.1 14
01_033	Pearl millet, boiled	20R, calc. from pearl millet, raw	1.00	(152)641	61.9	3.4	2.2	27.4	4.4
01_034	Rice, brown, raw	2B, 11E, US22	1.00	(352)1493	11.9	7.8	2.2	73.8	3.0
SD or min-max n					11.4-12.4 2	7.5-8.1 2	1.6-2.8 2		1
01_035	Rice, brown, boiled	calc. from rice, brown, raw	1.00	(135)574	66.1	3.0	0.8	28.4	1.2
01_036	Rice, polished, raw	2B, 11E, F08	1.00	(349)1480	12.3	6.8	0.6	78.4	1.4
SD or min-max n					12.0-12.5 2	6.6-7.0 2	0.5-0.6 2		1
01_037	Rice, white, raw	1P, 2P, US22	1.00	(346)1469	12.0	7.3	[0.4]	76.9	2.8
SD or min-max n					11.9-12.0 2	7.2-7.5 2			
01_038	Rice, white, boiled	calc. from rice, white, raw	1.00	(133)565	66.1	2.8	0.2	29.6	1.1
01_039	Sorghum, whole grain, raw	4E, 3B, 1P, 2P, 5B, 1E, US22		(383)1621	11.1	11.0	3.1	75.8	3.7
SD or min-max n					1.0 5	1.9 6	0.2 6		1
01_040	Sorghum, whole grain, white, raw	2E, US22	1.00	(369)1560	9.4	9.3	3.9	72.2	3.7
n					1	1	1		1
01_041	Sorghum, whole grain, red, raw	2E, US22	1.00	(364)1539	10.1	6.7	3.5	74.5	3.7
n					1	1	1		1
01_042	Sorghum, whole grain, boiled	calc. from sorghum whole grain, raw	1.00	(153)649	63.0	4.6	1.3	30.0	1.5
01_043	Wheat flour, white	3B, 2P, 2B, 11E, UK6		(347)1474	12.2	10.7	1.1	72.1	3.5
SD or min-max n					11.4-13.0 2	1.0 4	0.2 4		1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
01 Cereals and cereal products												
01_025	Pearl millet, variety ikmp 7, raw	1.2	14	10.8	73	156	303		2.0	0.38		
01_026	Pearl millet, variety ikmp 8, raw	1.1	14	10.2	69	147	285		1.9	0.36		
01_027	Pearl millet, variety ikmp 9, raw	1.2	15	11.0	74	159	307		2.1	0.38		
01_028	Pearl millet, variety ikmp 10, raw	2.0	24	17.6	119	255	494		3.3	0.62		
01_029	Pearl millet, variety ikmp 11, raw	1.7	21	15.4	104	223	431		2.9	0.54		
01_030	Pearl millet, variety ikmp 12, raw	1.2	15	11.1	75	160	311		2.1	0.39		
01_031	Pearl millet, variety ikmp 13, raw	1.2	15	11.1	76	161	313		2.1	0.39		
01_032	Pearl millet, combined varieties, raw	1.5	18	13.1	89	190	368		2.5	0.46		
SD or min-max		0.3	4	2.7	18	39	76		0.5	0.09		
n		14	14	14	14	14	14		14	14		
01_033	Pearl millet, boiled	0.7	8	5.9	41	82	134		1.1	0.19		
01_034	Rice, brown, raw	1.3	22	1.9	143	277	249	6	2.0	0.28		
SD or min-max			21-22	1.7-2.0		250-303	223-275					
n		1	2	2	1	2	2	1	1	1		
01_035	Rice, brown, boiled	0.5	8	0.7	55	101	77	2	0.7	0.11		
01_036	Rice, polished, raw	0.6	10	1.2	35	115	109	5	1.1	0.17	6	8
SD or min-max			9-10	0.6-1.7		102-127	98-120	4-5				
n		1	2	2	1	2	2	2	1	1	1	1
01_037	Rice, white, raw	0.6	11	2.6	35	99	86	1	1.2	0.01		
SD or min-max			8-14	2.2-3.0								
n		1	2	2	1	1	1	1	1	1		
01_038	Rice, white, boiled	0.2	4	1.0	13	36	26	0	0.4	0.00		
01_039	Sorghum, whole grain, raw	2.1	27	8.7	559	308	592	21	1.6	0.59	13	
SD or min-max		1.6-2.6	11.8	3.7	430-687	39			1.5-1.7	0.44-0.74		
n		2	6	6	2	3	1	1	2	2	1	
01_040	Sorghum, whole grain, white, raw	1.4	6	3.9	117	249	298		2.1	0.18	13	
n		1	1	1	1	1	1		1	1	1	
01_041	Sorghum, whole grain, red, raw	1.5	10	3.4	124	297	387		2.0	0.26	13	
n		1	1	1	1	1	1		1	1	1	
01_042	Sorghum, whole grain, boiled	0.9	11	3.6	233	122	197	7	0.6	0.24	5	
01_043	Wheat flour, white	0.5	21	2.0	60	128	135	3	4.0	0.15	2	10
SD or min-max			7.7	0.6	20-100	120-135						
n		1	4	4	2	2	1	1	1	1	1	1

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
01 Cereals and cereal products													
01_025	Pearl millet, variety ikmp 7, raw	0	0	0	0	0.08	0.16	0.10	0.9	0.55	22		1
01_026	Pearl millet, variety ikmp 8, raw	0	0	0	0	0.09	0.15	0.10	0.9	0.52	21		1
01_027	Pearl millet, variety ikmp 9, raw	0	0	0	0	0.10	0.16	0.10	0.9	0.56	22		1
01_028	Pearl millet, variety ikmp 10, raw	0	0	0	0	0.09	0.26	0.17	1.5	0.90	36		2
01_029	Pearl millet, variety ikmp 11, raw	0	0	0	0	0.09	0.23	0.14	1.3	0.79	32		2
01_030	Pearl millet, variety ikmp 12, raw	0	0	0	0	0.09	0.16	0.10	0.9	0.57	23		1
01_031	Pearl millet, variety ikmp 13, raw	0	0	0	0	0.09	0.17	0.10	0.9	0.57	23		1
01_032	Pearl millet, combined varieties, raw	0	0	0	0	0.09	0.20	0.12	1.1	0.67	27		1
SD or min-max		0	0	0	0	0.01	0.04	0.02	0.2	0.14	6		0
n		14	14	14	14	14	14	14	14	14	14		14
01_033	Pearl millet, boiled	0	0	0	0	0.03	0.04	0.04	0.4	0.15	9	0	0
01_034	Rice, brown, raw	0	0	0	0	0.60	0.38	0.07	5.0	0.51	40	0	0
SD or min-max							0.36-0.39	0.06-0.08	4.8-5.2				
n		1	1	1	1	1	2	2	2	1	1	1	1
01_035	Rice, brown, boiled	0	0	0	0	0.23	0.07	0.02	1.4	0.10	11	0	0
01_036	Rice, polished, raw	0	0	0	0	0.10	0.09	0.04	2.2	0.20	20	0	0
SD or min-max							0.07-0.10	0.03-0.04	1.6-2.8			0	0
n		1	1	1	1	1	2	2	2	1	1	2	2
01_037	Rice, white, raw	0			0		0.06	0.03	1.0	0.15	9	0	0
SD or min-max													
n		1			1		1	1	1	1	1	1	1
01_038	Rice, white, boiled	0			0		0.01	0.01	0.3	0.03	2	0	0
01_039	Sorghum, whole grain, raw	4	0	15	0	1.10	0.36	0.17	3.5				Tr
SD or min-max		3		10-20			0.08	0.06	0.2				
n		3	1	2	1	1	5	5	4				1
01_040	Sorghum, whole grain, white, raw				0	1.36	0.30	0.14	2.9				Tr
n					1	1	1	1	1				1
01_041	Sorghum, whole grain, red, raw				0	1.23	0.33	0.15	3.2				Tr
n					1	1	1	1	1				1
01_042	Sorghum, whole grain, boiled	2		6	0	0.46	0.07	0.05	1.1				Tr
01_043	Wheat flour, white	0	0	0	0	0.30	0.24	0.09	2.3	0.20	27	0	0
SD or min-max							0.13	0.05	2.1		24-30		0
n		1	1	1	1	1	3	3	3	1	2	1	2

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
02 Starchy roots and tubers									
02_001	Cassava, raw	9B, 3B, 12B, 2P, 3P, 1P, 11E, DK7, US22	0.84	(157)665	59.3	1.1	0.3	36.5	1.8
SD or min-max n					3.0 5	0.3 7	0.1 4		1
02_002	Cassava, dried, raw	11E, DK7	1.00	(351)1490	9.4	2.1	0.6	83.2	2.2
n					1	1	1		1
02_003	Cassava, boiled	calc. from cassava, raw	1.00	(165)700	57.1	1.2	0.3	38.5	1.9
02_004	Cassava flour	3E, 11E, 11E, 12E, 16V, 3B	1.00	(344)1462	11.7	1.8	0.5	82.3	1.9
SD or min-max n					2.6 5	0.5 6	0.24 6		1.7-2.1 2
02_005	Cocoyam, raw	1P, 2P	0.81	(139)589	58.2	2.7	0.2	31.3	[0.6]
SD or min-max n					57.7-58.6 2	0 2	0 2		1
02_006	Cocoyam, boiled	calc. from cocoyam, raw	1.00	(146)621	55.9	3.0	0.2	32.8	[0.7]
02_007	Plantain, ripe, raw	1P, 3P, 2P, UK6, US22	0.65	(149)630	61.2	1.1	0.3	34.3	2.3
SD or min-max n					3.3 3	0.6 3	0.2-0.3 2		1
02_008	Plantain, ripe, boiled	calc. from plantain ripe, raw	1.00	(156)663	59.2	1.2	0.3	36.1	2.4
02_009	Potato, raw	11E, 5B, 12B, 2B, 4E, DK7	0.84	(82)346	77.4	1.9	0.1	17.3	1.8
SD or min-max n					1.5 5	0.2 5	0 5		0.3 2
02_010	Potato, boiled	calc. from potato, raw	1.00	(74)313	77.4	1.8	0.1	15.6	1.7
02_011	Sweet potato, raw	11E, 6B, 5B, 12B, 3B, 2B, 1P, 2P, US22	0.84	(112)474	70.0	1.8	0.3	24.1	3.0
SD or min-max n					7.1 7	1.3 8	0.2 8		2.9-3.1 2
02_012	Sweet potato, boiled	calc. from sweet potato raw	1.00	(101)429	70.0	1.7	0.3	21.7	2.8
02_013	Sweet potato, yellow, raw	11E, 4E, UK6	0.84	(117)498	68.8	1.6	0.2	26.1	2.4
SD or min-max n					0.0 2	0.0 2	0.0 2		0.0
02_014	Sweet potato, yellow, boiled	calc. from sweet potato, raw	1.00	(106)450	68.8	1.5	0.2	23.5	2.2
02_015	Taro, tuber, raw	11E, 4E, US22	0.66	(95)402	73.1	1.8	0.1	19.7	4.1
SD or min-max n					0 2	0 2	0 2		1
02_016	Taro, tuber, boiled	calc. from taro tuber, raw	1.00	(100)423	71.7	1.9	0.1	20.7	4.3

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
02 Starchy roots and tubers												
02_001	Cassava, raw	1.0	46	1.7	21	46	271	14	0.2	0.05	1	
	SD or min-max	0.1	21	0.8		12						
	n	3	7	7	1	5	1	1	1	1	0	
02_002	Cassava, dried, raw	2.5	102	3.8	47	98	609	31	0.8	0.22		
	n	1	1	1	1	1	1	1	1	1		
02_003	Cassava, boiled	1.1	46	1.4	13	43	128	8	0.2	0.05	1	
02_004	Cassava flour	1.9	117	4.6	46	93	594	31	0.7	0.22		
	SD or min-max	0.9	113	0.9		53						
	n	4	5	5	1	4	1	1	1	1		
02_005	Cocoyam, raw	7.1	12	3.6		101						
	SD or min-max		11-12	3.4-3.7								
	n	1	2	2		1						
02_006	Cocoyam, boiled	5.4	12	2.8		96						
02_007	Plantain, ripe, raw	0.8	7	1.1	37	33	500	4	0.1	0.08	2	
	SD or min-max		1	0.2		27-38						
	n	1	3	3	1	2	1	1	1	1	1	
02_008	Plantain, ripe, boiled	0.8	7	0.9	23	31	237	2	0.1	0.08	2	
02_009	Potato, raw	1.5	10	0.8	27	50	471	5	0.3	0.09	2	2
	SD or min-max	1.4-1.6					417-525	3-7				
	n	2	5	5	3	4	2	2	1	1	1	1
02_010	Potato, boiled	1.1	10	0.8	25	47	377	4	0.3	0.08	2	2
02_011	Sweet potato, raw	1.2	45	1.9	16	50	330	11	0.4	0.20	2	2
	SD or min-max	0.6	51	1.2	13-18	10	300-360	8		0.13-0.26		
	n	4	8	8		4	2	3	1	2	1	1
02_012	Sweet potato, boiled	0.8	42	1.7	14	47	264	9	0.3	0.18	2	2
02_013	Sweet potato, yellow, raw	0.9	33	2.0	17	38	345	37	0.3	0.13	1	2
	SD or min-max	0	0	0.0								
	n	1	2	2	1	1	1	1	1	1	1	1
02_014	Sweet potato, yellow, boiled	0.6	31	1.8	15	36	276	30	0.3	0.12	1	2
02_015	Taro, tuber, raw	1.2	51	1.2	33	88	591	11	0.2	0.17	1	
	SD or min-max	0	0	0		0						
	n	1	2	2	1	2	1	1	1	1	1	
02_016	Taro, tuber, boiled	1.3	51	0.9	21	83	280	6	0.2	0.17	1	

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
02 Starchy roots and tubers													
02_001	Cassava, raw	1	0	6	0	0.19	0.04	0.05	0.7	0.09	24	1	31
	SD or min-max						0	0	0.1				1
	n	1	1	1	1	1	3	3	4	1	1	1	5
02_002	Cassava, dried, raw	2	0	13	0	0.41	0.12	0.02	1.5	2.00	53	1	68
	n	1	1	1	1	1	1	1	1	1	1	1	1
02_003	Cassava, boiled	1	0	6	0	0.20	0.03	0.04	0.5	0.06	13	0	13
02_004	Cassava flour	0			0	0.40	0.07	0.04	1.2	1.57	52		4
	SD or min-max						0.04	0.01	0.5				
	n	1			1	1	3	3	3	1	1		1
02_005	Cocoyam, raw	0					0.10	0.03	0.8				8
	SD or min-max												
	n	1					1	1	1				1
02_006	Cocoyam, boiled	0					0.07	0.02	0.6			0	3
02_007	Plantain, ripe, raw	88	0	780	0	0.20	0.05	0.05	0.7	0.30	22	0	20
	SD or min-max	45-130							0.6-0.7				0
	n	2		1	1	1	1	1	2	1	1	1	2
02_008	Plantain, ripe, boiled	83	0	739	0	0.21	0.04	0.04	0.5	0.22	12	0	8
02_009	Potato, raw	2	0	10	0	0.06	0.09	0.18	1.2	0.28	21	0	16
	SD or min-max						0.02	0.25	0.2	0.26-0.31	20-22		6
	n	1		1	1	2	3	3	3	2	2	1	3
02_010	Potato, boiled	2	0	9	0	0.06	0.07	0.15	0.8	0.20	11	0	11
02_011	Sweet potato, raw	876	0	5950	0	1.50	0.09	0.05	0.6	0.20	32	0	22
	SD or min-max	382		4000-7900			0.01	0.01	0.1	0.13-0.27	12-52		7
	n	3		2	1	1	5	5	5	2	2	1	5
02_012	Sweet potato, boiled	789		5355	0	1.50	0.07	0.04	0.4	0.14	16	0	15
02_013	Sweet potato, yellow, raw	209		1255	0	0.19	0.09	0.04	0.7	0.08	16	0	37
	SD or min-max												
	n	1		1	1	1	1	1	1	1	1	1	1
02_014	Sweet potato, yellow, boiled	188	0	1130	0	0.19	0.07	0.03	0.5	0.06	8	0	26
02_015	Taro, tuber, raw	4	0	23	0	1.19	0.10	0.03	0.8	0.24	22	0	8
	SD or min-max												
	n	1	1	1	1	1	1	1	1	1	1	1	1
02_016	Taro, tuber, boiled	4	0	21	0	1.25	0.07	0.02	0.6	0.18	12	0	3

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
02 Starchy roots and tubers									
02_017	Water yam, raw	2P, 3B, US22	0.81	(134)566	63.0	2.5	0.1	28.6	4.1
SD or min-max n					1	2.3-2.6	0.1-0.2		1
					2	2	2		
02_018	Water yam, tuber, boiled	calc. from water yam, raw	1.00	(141)596	61.1	2.6	0.2	30.1	4.3
02_019	Yam tuber, raw	1P, 2P, 3P, 2B, 4E, US22	0.81	(128)542	64.9	2.0	0.3	27.5	4.1
SD or min-max n					2.9	0.2	0.2		1
					4	5	4		
02_020	Yam tuber, boiled	calc. from yam tuber, raw	1.00	(101)429	70.0	1.7	0.3	21.7	2.8
03 Legumes and their products									
03_001	Bambara groundnut, dried, raw	1E, 2P, FAO, 2E	1.00	(371)1566	9.2	20.2	6.2	56.3	[4.8]
SD or min-max n					8.0-10.4	19.2-21.1	5.8-6.5		1
					2	2	2		
03_002	Bambara groundnut, seeds, red, dried, raw	2E, 1E, 1P	1.00	(376)1588	8.1	18.4	5.5	60.8	[4.8]
n					1	1	1		1
03_003	Bambara groundnut, seeds, white, dried, raw	2E, 1E, 1P	1.00	(380)1606	7.9	20.0	6.5	58.0	[4.8]
n					1	1	1		1
03_004	Cowpea, dried, raw	1P, 1E, 12B, 9B, 3P, 2P, US22	1.00	(335)1418	10.4	21.1	1.2	54.7	10.6
SD or min-max n					0.8	4.7	0.1		1
					5	7	7		
03_005	Cowpea, seeds, whole, dried, black	2E	1.00	(322)1361	12.9	17.7	1.6	53.9	10.6
n					1	1			
03_006	Cowpea, seeds, whole, dried, white	2E	1.00	(338)1430	9.2	21.6	1.8	53.6	10.6
n					1	1	1		
03_007	Cowpea, boiled	calc. from cowpea, dried, raw	1.00	(137)579	63.4	8.6	0.5	22.3	4.3
03_008	Soya bean, dried, raw	2P, 1E, 2E, UK6	1.00	(397)1661	8.7	33.2	16.6	20.8	15.7
SD n					1.5	0.6	3.4		1
					3	3	3		
04 Vegetables and their products									
04_001	Baobab, leaves, raw	3B, 6B, 2P, 11E, 10E	1.00	(74)314	78.3	3.9	0.3	12.8	[2.5]
SD or min-max n					2.5	0.2	0.0		2.2-2.8
					4	5	3		2
04_002	Baobab, leaves, dried, raw	2P, 1E, 11E	1.00	(321)1356	10.3	12.8	3.2	56.1	[8.4]
SD or min-max n					1.4	1.6	0.5		
					3	3	3		1
04_003	Bean, raw	10E, 5B, 2B, 12B	0.83	(32)134	90.7	2.4	0.2	3.9	2.5
SD or min-max n					1.1	0.6	0.02		1.9-3.1
					4	4	3		2

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
02 Starchy roots and tubers												
02_017	Water yam, raw	1.7	20	1.1	55	70	735	8	3.0	0.22	1	
	SD or min-max		12-27	0.5-1.7								
	n	1	2	2	1	1	1	1	1	1	1	
02_018	Water yam, tuber, boiled	1.8	20	0.9	35	66	348	5	2.4	0.22	1	
02_019	Yam tuber, raw	1.3	23	1.3	17	48	758	8	0.2	0.07	1	
	SD or min-max		19	0.3		6						
	n	1	5	5	1	3	1	1	1	1	1	
02_020	Yam tuber, boiled	0.8	23	1.0	11	45	359	5	0.2	0.07	1	
03 Legumes and their products												
03_001	Bambara groundnut, dried, raw	3.4	90	4.4	182	219	1329		2.2	0.73		
	SD or min-max	3.0-3.8	0	4.0-4.7								
	n	2	2	2	1	1	1		1	1		
03_002	Bambara groundnut, seeds, red, dried, raw	3.2	35	1.3	178	272	1291		2.0	0.64		
	n	1	1	1	1	1	1		1	1		
03_003	Bambara groundnut, seeds, white, dried, raw	3.1	50	1.9	185	309	1367		2.4	0.82		
	n	1	1	1	1	1	1		1	1		
03_004	Cowpea, dried, raw	3.3	84	7.8	41	384	1724	18	8.0	0.08	8	
	SD or min-max	0.5	15	2.7		12						
	n	3	7	7	1	5	1	1	1	1	1	
03_005	Cowpea,seeds,whole,dried,black	3.3	76	6.8	202	390	1378		4.0	0.60		
	n											
03_006	Cowpea,seeds,whole,dried,white	3.2	92	6.2	198	375	1308		4.4	0.90		
	n											
03_007	Cowpea, boiled	1.3	29	2.7	14	141	528	6	2.9	0.02	3	
03_008	Soya bean, dried, raw	4.9	247	8.3	245	444	1789	5	4.7	1.48	14	6
	SD	0.1	72	3.2		195						
	n	3	3	3	1	3	1	1	1	1	1	1
04 Vegetables and their products												
04_001	Baobab, leaves, raw	2.3	313	2.6	26	83			0.8	0.18		
	SD or min-max	0.9	137	0.5		65-100			0.6-1.0			
	n	3	5	3	1	2			2	1		
04_002	Baobab, leaves, dried, raw	9.3	2464	15.0	107	188	149		3.3	0.75		
	SD or min-max	0.6	412			118						
	n	3	3	1		3	1		1	1		
04_003	Bean, raw	0.6	54	1.0	25	43	235	3	0.3	0.08	14	3
	SD or min-max		12	0.2	22-28	10	226-243	2-4	0.2-0.3			
	n	1	4	4	2	3	2	2	2	1	1	1

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
02 Starchy roots and tubers													
02_017	Water yam, raw	6			0	0.30	0.05	0.03	0.5	0.26	21	0	15
	SD or min-max												
n		1			1	1	1	1	1	1	1	1	1
02_018	Water yam, tuber, boiled	6			0	0.31	0.04	0.02	0.4	0.19	11	0	6
02_019	Yam tuber, raw	2		17	0	0.51	0.40	0.08	0.6	0.32	21	0	13
	SD or min-max	2		8-25			0.61	0.10	0.2				9
n		4		2	1	1	3	3	4	1	1	1	3
02_020	Yam tuber, boiled	2		16	0	0.54	0.29	0.06	0.4	0.23	11	0	5
03 Legumes and their products													
03_001	Bambara groundnut, dried, raw	5		30			0.30	0.10	2.1				1
	SD or min-max												
n		1		1			1	1	1				1
03_002	Bambara groundnut, seeds, red, dried, raw						0.30	0.10	2.1				1
n							1	1	1				1
03_003	Bambara groundnut, seeds, white, dried, raw						0.30	0.10	2.1				1
n							1	1	1				1
03_004	Cowpea, dried, raw	7	0	41	0	0.39	0.58	0.15	2.9	0.51	359	0	1
	SD or min-max	4		12-70			0.37	0.05	0.9				1
n		4	1	2	1		4	4	5	1	1	1	4
03_005	Cowpea,seeds,whole,dried,black				0	0.39	0.72	0.18	3.6	0.64	446		1
n													
03_006	Cowpea,seeds,whole,dried,white					0.39	0.51	0.13	2.6	0.45	318		1
n													
03_007	Cowpea, boiled	3		17		0.14	0.15	0.04	0.8	0.15	73	0	0
03_008	Soya bean, dried, raw	9	0	55	0		0.70	0.30	2.0	0.38	370	0	Tr
	SD												
n		1	1	1	1		1	1	1	1	1	1	1
04 Vegetables and their products													
04_001	Baobab, leaves, raw	450		2700		3.50	0.03	0.04	1.9				52
	SD or min-max												0
n		1		1		1	1	1	1				2
04_002	Baobab, leaves, dried, raw	1528		9170		37.33	0.32	1.01	7.6				187
	SD or min-max						0.13-0.50	0.82-1.20					
n		1		1		1	2	2	1				1
04_003	Bean, raw	54	0	321	0	0.28	0.08	0.10	0.7	0.20	75	0	18
	SD or min-max	3		20		0.24-0.32				0.14-0.26	70-79		16-19
n		3	1	3	1	2	1	1	1	2	2		2

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
04 Vegetables and their products									
04_004	Bush okro leaves, raw	4E, 10E, 2P, 3B	0.80	(58)244	84.4	4.6	0.5	8.4	[0.5]
	SD or min-max				3.7	0.1	0.3-0.7		
	n				3	4	2		1
04_005	Cabbage, raw	2P, 11E, UK6, US22	0.77	(26)108	91.7	1.6	0.1	3.4	2.5
	SD or min-max				91.4-92.0	1.5-1.7	0.0		
	n				2	2	2		1
04_006	Carrot, raw	5B, 3B, 2B, 2P, 11E, 10E, 4E, 1E	0.70	(35)147	88.8	1.0	0.3	5.6	3.1
	SD or min-max				0.7	0.2	0.3		2.6-3.6
	n				6	8	7		2
04_007	Carrot, boiled	calc. from raw carrot, raw	1.00	(33)140	88.2	0.9	0.3	5.3	3.0
04_008	Cassava, fresh leaves, raw	9B, 2P, 6B, 12B, 11E, 3B, FAO	0.80	(98)413	73.8	7.4	0.9	13.5	[3.2]
	SD or min-max				3.8	0.6	0.3		3.0-3.4
	n				4	6	6		2
04_009	Cocoyam leaves, raw	3P, 2P, 4E	0.80	(34)143	90.8	3.3	0.6	3.0	[1.8]
	SD or min-max				2.9	1.1	0.4		1.7-1.8
	n				3	3	3		2
04_010	Cowpea, leaves, raw	3B, 10E, 11E, 9B	0.80	(44)187	86.6	4.7	0.3	4.7	[2.0]
	SD or min-max				85.0-88.2	0.1	0.0		
	n				2	3	2		1
04_011	Drumstick tree, fresh leaves, raw	10E, 6B, 8B, 3B	0.80	(94)397	74.8	8.3	0.6	[13.8]	
	SD or min-max				0.2	0.2	0.0		
	n				3	4	3		
04_012	Eggplant, raw	11E, 3B, 5B, 2B, 2P, UK6, US22	0.81	(28)116	91.7	1.1	0.2	4.0	2.6
	SD or min-max				0.0	0.1	0.1		2.4-2.8
	n				4	5	5		2
04_013	Eggplant, leaves, raw	11E, 2P	0.80	(44)183	86.9	4.3	0.7	3.9	[2.3]
	SD or min-max				86.4-87.4	3.9-4.6	0.4-1.0		
	n				2	2	2		1
04_014	False sesame leaves, dried, raw	2E, 2P, FAO	1.00	(286)1211	13.6	17.7	2.6	45.3	[5.6]
	SD or min-max				11.8-15.4	14.2-21.1	1.6-3.6		
	n				2	2	2		1
04_015	Garlic, raw	11E, 5B, 2B	0.79	(136)575	63.7	6.1	0.2	25.8	3.0
	SD or min-max				0.4	0.9	0.2		
	n				3	3	3		1
04_016	Leaves of roselle, raw	9B, 6B, 12B, 10E, 11E, 11B, FAO	0.80	(42)176	87.9	2.7	0.2	6.4	[1.6]
	SD or min-max				3.3	0.7	0.1		
	n				4	5	4		1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
04 Vegetables and their products												
04_004	Bush okro leaves, raw	1.6	292	5.0	22	311			4.7	0.16		
SD or min-max			83	2.0		122-500			0.4-9.0			
n		1	4	4	1	2			2	1		
04_005	Cabbage, raw	0.8	35	0.6	10	34	1	13	0.2	0.02	1	
SD or min-max		0.7-0.8	24-46	0.5-0.7	8-12	28-40			0.2-0.3	0.00	0-1	
n		2	2	2	2	2	1	1	2	2	2	
04_006	Carrot, raw	1.3	35	0.9	12	42	271	39	0.8	0.06	1	19
SD or min-max		1.0-1.5	7	0.6	2	18	65	21	1.0	0.05-0.07		
n		2	8	8	3	6	3	3	3	2	1	1
04_007	Carrot, boiled	0.9	35	0.7	8	40	129	23	0.6	0.06	1	20
04_008	Cassava, fresh leaves, raw	1.3	223	5.6	17	79			5.0	0.16		
SD or min-max		0.8	135	3.1		43						
n		4	6	4	1	4			1	1		
04_009	Cocoyam leaves, raw	1.1	188	4.3		220						
SD or min-max		0.0	193	4.0		52-388						
n		2	3	3		2						
04_010	Cowpea, leaves, raw	1.7	272	4.5	26	61			0.6	0.07		
SD or min-max			15	2.3	0	58-63						
n		1	3	3	1	2			1	1		
04_011	Drumstick tree, fresh leaves, raw	2.5	554	11.5	30				2.0	0.21		
SD or min-max		0.0	27	0.5					1.1-2.8			
n		2	4	4	1				2	1		
04_012	Eggplant, raw	0.6	12	0.9	12	24	235	3	1.6	0.05	4	1
SD or min-max		0.0	2	0.5	3	4	30	1	0.1-0.3	0.00-0.09		
n		2	5	5	3	4	3	3	2	2	1	1
04_013	Eggplant, leaves, raw	2.0	272	11.3		332						
SD or min-max		1.9-2.0	254-290	7.1-15.5		38-625						
n		2	2	2		2						
04_014	False sesame leaves, dried, raw	15.3	1311	128.8	501	284	1798		4.2	2.19		
SD or min-max		11.5-19.0	1021-1600	124-134		250-319						
n		2	2	2	1	2	1		1	1		
04_015	Garlic, raw	1.2	36	1.5	21	154	446	17	0.6	0.15	0	0
SD or min-max			3	0.2		35						
n		1	3	3	1	3	1	1	1	1	1	1
04_016	Leaves of roselle, raw	1.2	174	3.0	8	54	208	0	0.0	0.01		
SD or min-max		0.4	36	2.0		36						
n		3	6	5	1	4	1	1	1	1		

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
04 Vegetables and their products													
04_004	Bush okro leaves, raw	973		5555		3.60	0.15	0.53	1.2				80
SD or min-max		164		4700-6410			0.00	0.00	0.0				0
n		3		2		1	2	2	2				2
04_005	Cabbage, raw	10	0	59			0.04	0.04	0.3	0.15	59	0	54
SD or min-max										0.12-0.17	43-75		
n		1	1	1			1	1	1	2	2	1	1
04_006	Carrot, raw	1201	0	7712	0	0.26	0.06	0.05	0.7	0.22	28	0	7
SD or min-max		359		2125		0.05-0.47	0.02	0.01	0.2	0.16-0.27	26-30		1
n		6	1	5	1	2	6	6	5	2	2		6
04_007	Carrot, boiled	1137	0	7306	0	0.27	0.04	0.04	0.5	0.16	15	0	3
04_008	Cassava, fresh leaves, raw	1733		20803			0.25	0.32					370
SD or min-max		1733-3467											311-370
n		2		1			1	1					2
04_009	Cocoyam leaves, raw	751		4508			0.50	0.42	1.2				37
SD or min-max		550-953		3300-5716									
n		2		2			1	1	1				1
04_010	Cowpea, leaves, raw	483		2900		3.00	0.20	0.37	2.1				58
SD or min-max													56-60
n		1		1		1	1	1	1				2
04_011	Drumstick tree, fresh leaves, raw	4628		19700		13.40	0.23	0.77	2.7				220
SD or min-max		1202					0.00	0.00	0.0				0
n		3		1		1	2	2	3				3
04_012	Eggplant, raw	12	0	43	0	0.03	0.05	0.04	0.6	0.08	25	0	6
SD or min-max		7-17					0.01	0.01	0.1		19-31		3
n		2	1	1	1	1	3	3	3	1	2	1	4
04_013	Eggplant, leaves, raw												79
SD or min-max													
n													1
04_014	False sesame leaves, dried, raw												
SD or min-max													
n													
04_015	Garlic, raw	Tr	0	Tr	0	0.01	0.19	0.10	0.7	1.20	3	0	18
SD or min-max		0		Tr			0.18-0.20						11
n		1		1	1	1	2	1	1	1	1	1	3
04_016	Leaves of roselle, raw	417	0	2500		1.90	0.17	0.45	1.2			0	34
SD or min-max													14-54
		1											

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
04 Vegetables and their products									
04_017	Okra, fresh, raw	11E, 1P, 2P, 3B	0.74	(31)129	91.7	1.7	0.2	5.1	[0.8]
	SD or min-max				91.0-92.4	0.4	0.1		
	n				2	4	4		1
04_018	Onion, raw	1E, 14E, 1P, 2P, 12B, 2P, 5B, 2B	0.91	(32)133	90.9	1.1	0.1	5.6	1.8
	SD or min-max				1.9	1.1	0.1		
	n				8	8	8		1
04_019	Tamarind, leaves, raw	9B, 4E, 3B, 11E, UK6, FAO	1.00	(82)344	78.0	5.9	1.7	8.8	[4.1]
	SD or min-max				0.0	5.5	1.6		
	n				2	4	3		1
04_020	Taro, young leaves, raw	11E, US22	0.70	(30)127	90.0	2.4	0.6	2.0	3.7
	SD or min-max				1	1	1		1
04_021	Tomato, raw	1E, 3P, 2P, 1P, 5B, 12B, 3B, 2B, UK6	1.00	(21)89	93.9	1.0	0.2	3.3	1.1
	SD or min-max				0.6	0.2	0.1		1.0-1.2
	n				7	8	8		2
04_022	Vernonia, leaves, raw	1E, 10E, 4E, FAO	0.90	(62)261	82.6	5.3	0.4	8.5	[1.5]
	SD or min-max				0.0	0.1	0.0		
	n				2	3	2		1
05 Fruits and their products									
05_001	African locust bean, fruit, pulp, raw	3B, 2E, 11E, 1B	1.00	(312)1319	13.6	3.4	0.9	66.3	[12.6]
	SD or min-max				13.2-14.0	0.1	0.8		
	n				2	3	3		
05_002	Avocado, pulp, raw	11E, 4E, 5B, 12B, 2B, 1E, 2P, US22, UK6	1.00	(149)615	77.1	1.6	14.3	1.2	4.7
	SD or min-max				5.0	0.3	4.3		3.0-6.3
	n				7	7	7		2
05_003	Banana, fruit, raw	11E, 1P, 2P, 3B, 2B, 5B, 4E, UK6	1.00	(100)426	73.5	1.3	0.3	22.2	1.9
	SD or min-max				3.4	0.2	0.3		1.8-2.0
	n				6	7	7		2
05_004	Baobab, fruit, pulp, raw	4R, 11E, 16V, 3B, 1B, 9B	1.00	(337)1428	10.7	2.7	0.7	76.7	[6.8]
	SD or min-max				5.0	0.6	0.5		0.0
	n				5	7	7		2
05_005	Bread fruit, raw	1E, 3E, 16V	0.80	(108)457	71.5	1.4	0.3	24.0	[1.9]
	SD or min-max				0.8	0.1	0.1		1.8-1.9
	n				3	3	3		2
05_006	Cashew apple, pulp, raw	1E, 11E, 5B, 1B, UK6	1.00	(56)235	85.8	1.0	0.7	10.7	[1.5]
	SD or min-max				0.3	0.1	0.1		
	n				4	4	4		1
05_007	Dattock, fresh pulp, raw	1B, FAO	0.47	(125)530	66.9	1.9	0.4	27.3	[2.3]

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
04 Vegetables and their products												
04_017	Okra, fresh, raw	0.5	103	0.9	13	30	22		3.0	0.09		
SD or min-max		0.4-0.7	60	0.5		25-36						
n		2	4	4	1	2	1		1	1		
04_018	Onion, raw	0.6	27	0.5	7	34	147	6	0.2	0.04	2	2
SD or min-max		0.2	12	0.4	5	10	101	4				
n		3	7	8	3	6	4	3	1	1	1	1
04_019	Tamarind, leaves, raw	1.6	1104	5.2	71	211	Tr	Tr	1.0	0.07		
SD or min-max			1036			22-400						
n		1	3	1	1	2	1	1	1	1		
04_020	Taro, young leaves, raw	1.3	98	2.0	45	49	648	3	0.4	0.27	0	
SD or min-max		1	1	1	1	1	1	1	1	1	1	
n		1	1	1	1	1	1	1	1	1	1	
04_021	Tomato, raw	0.6	12	0.9	12	41	228	6	1.1	0.12	1	1
SD or min-max		0.2	7	0.6	2	18	7	3	0.2-2.0	0.06-0.19		
n		3	8	8	3	6	3	3	2	2	1	1
04_022	Vernonia, leaves, raw	1.7	145	5.0		67						
SD or min-max		0	0	0.0		0						
n		1	3	3		2						
05 Fruits and their products												
05_001	African locust bean, fruit, pulp, raw	3.2	118	3.6	88	123	1674		1.4	0.23		
SD or min-max		2.9-3.5	11	0.0	41-134	87-160			0.8-2.0	0.02-0.43		
n		2	3	2	2	2	1		2	2		
05_002	Avocado, pulp, raw	1.1	16	1.1	32	46	563	5	0.6	0.23		2
SD or min-max		0.3	5	0.4	30-33	6	103	2				
n		3	7	7	2	7	3	3	1	1		1
05_003	Banana, fruit, raw	0.8	8	1.0	34	23	377	2	1.1	0.06	1	2
SD or min-max		0.0	1	0.5	6	3	9	1	0.2-2.0	0.02-0.11		
n		2	6	6	3	5	3	3	2	2	1	1
05_004	Baobab, fruit, pulp, raw	2.5	251	8.4	61	80	2010	96	3.0	0.70		
SD or min-max		1	58	2.7	45-78	45	1141-2879			0.49-0.92		
n		1	7	5	2	6	2	1	1	2		
05_005	Bread fruit, raw	0.9	28	2.3		34						
SD or min-max		0.0	1	0.6		1						
n		2	3	3		3						
05_006	Cashew apple, pulp, raw	0.4	11	1.2	10	35	140	6				
SD or min-max		0	2	0.2	0	9	130-150	0				
n		1	4	4	2	3	2	2				
05_007	Dattock, fresh pulp, raw	1.2	27	2.8		48						

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
04 Vegetables and their products													
04_017	Okra, fresh, raw	72		385			0.04	0.08	0.7				29
SD or min-max		21					0.00	0.00	0.6-0.8				17
n		3		1			2	2	2				3
04_018	Onion, raw	1	0	8	0	0.08	0.03	0.04	0.2	0.10	16	0	7
SD or min-max		1-2		7-9		0.06	0.02	0.02	0.1	0.06	11-20	0	4
n		2	1	2	1	3	4	3	4	4	2	2	5
04_019	Tamarind, leaves, raw	42		250	0		0.10	0.11	2.8			0	6
SD or min-max													
n		1		1	1		1	1	1			1	1
04_020	Taro, young leaves, raw	386	0	2318	0	1.64	0.17	0.35	0.8	0.15	126		52
SD or min-max		1	1	1	1	1	1	1	1	1	1		1
n		1		1									1
04_021	Tomato, raw	127	0	671	0	1.43	0.06	0.04	0.6	0.09	19	0	29
SD or min-max		43		256			0.01	0.00	0.1	0.01	4		13
n		6	1	4	1	1	5	5	4	3	3	1	5
04_022	Vernonia, leaves, raw												36
SD or min-max													20-51
n													2
05 Fruits and their products													
05_001	African locust bean, fruit, pulp, raw	405		2430			1.08	0.71	1.3	0.00			234
SD or min-max							1.05-1.10	0.70-0.71	1.0-1.5				225-242
n		1		1			2	2	2	1			2
05_002	Avocado, pulp, raw	20	0	119	0	1.60	0.06	0.15	1.7	0.41	42	0	16
SD or min-max		9-31		54-185		1.30-1.90	0.01	0.01	0.5	0.28-0.53	30-54		3
n		2	1	2	1	2	5	5	3	2	2	1	5
05_003	Banana, fruit, raw	19	0	80	0	0.37	0.04	0.04	0.6	0.42	19	0	10
SD or min-max		11		36		0.29-0.45	0.01	0.02	0.1	0.36-0.47	14-23		1
n		5	1	3	1	2	6	6	6	2	2		6
05_004	Baobab, fruit, pulp, raw	16		70			0.31	0.07	2.1	0.02			222
SD or min-max		12-20					0.11	0.03	0.1				50
n		2		1			4	4	3	1			5
05_005	Bread fruit, raw	1		6			0.08	0.05				1	31
SD or min-max		0-2		2-10			0.00	0.00					0
n		2		2			2	2				1	2
05_006	Cashew apple, pulp, raw	112	0	671	0		0.03	0.18	0.3			0	241
SD or min-max		26		154			0.00	0.12-0.24	0.2-0.4				20
n		3	1	3	1		3	2	2			1	3
05_007	Dattock, fresh pulp, raw	28		165			0.13	0.05	0.6				1

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
05 Fruits and their products									
05_008	Dattock, dried pulp, raw	1B, calc. from dattock, fresh, raw	1.00	(322)1362	14.0	3.4	1.0	71.2	[7.1]
n					1	1	1		1
05_009	Fig, raw	3B, 10B, UK6, FAO	0.98	(78)330	78.5	1.4	1.2	13.6	3.7
SD or min-max					1	1.3-1.6	0.0		2.3-5.1
n					2	2	2		2
05_010	Guava, fruit, raw	1E, 2P, 12B, 3B, 11E, 5B, 4E, UK6	1.00	(58)245	82.7	1.0	0.4	10.1	5.2
SD or min-max					0.9	0.1	0.3		
n					6	7	7		1
05_011	Gumvine, fruit, raw	4R, 3B, 1B	1.00	(70)295	79.4	0.7	0.2	15.6	[1.3]
SD or min-max					0.5	0.2	0.1		
n					4	4	5		1
05_012	Jujube, fresh pulp, raw	5B, 3B, UK6, US22	0.93	(105)448	73.5	1.7	0.3	[24.0]	
SD or min-max						1.4-1.9			
n					1	2	1		
05_013	Landolphia, pulp, ripe, raw	4R, 1B	0.36	(55)232	83.3	0.7	0.1	12.5	[0.3]
SD or min-max					81.4-85.3	0.6-0.8	0.1-0.2		
n					2	2	2		1
05_014	Lemon, fruit, raw	11E, 12B, 2B, 2P, 16V, 4E, US22	0.64	(36)153	90.1	0.7	0.5	6.3	2.1
SD or min-max					1.0	0.1	0.2		
n					6	6	5	1	1
05_015	Mango, ripe, fruit, raw	16V, 5B, 1E, 11E, 1P, 2P, 12B, 3B, 2B, 4E, UK6	1.00	(62)261	83.2	0.6	0.2	13.3	2.0
SD or min-max					2.0	0.1	0.2		1.7-2.3
n					9	10	10		2
05_016	Orange, raw	2P, 5B, 12B, 2B, 11E, 1P, 4E, UK6	1.00	(45)189	87.8	0.8	0.3	8.9	1.7
SD or min-max					1.7	0.2	0.1		1.6-1.8
n					7	7	5		2
05_017	Papaya, fruit, ripe, raw	2P, 1P, 4P, 3B, 2B, 1B, 12B, 11E, 4E	0.74	(38)159	89.4	0.5	0.1	7.7	1.9
SD or min-max					1.1	0.1	0.1		0.0
n					9	10	9		3
05_018	Pineapple, pulp, raw	11E, 12B, 3B, 2B, 1P, 4E, 16V	1.00	(56)235	85.5	0.4	0.3	12.1	1.4
SD or min-max					1.4	0.1	0.3		
n					6	7	7		1
05_019	Soapberry, fruit, raw	3B, 1B, FAO	0.57	(114)482	71.4	1.6	0.0	26.5	[0.5]
SD or min-max						1.5-1.6			
n					1	2	1		1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
05 Fruits and their products												
05_008	Dattock, dried pulp, raw	3.3	110	7.3		125						
n		1	1	1		1						
05_009	Fig, raw	1.6	250	6.0	24	65	900	58	2.4	0.02	Tr	
SD or min-max			0	0.0								
n		1	2	2	1	1	1	1	1	1		
05_010	Guava, fruit, raw	0.7	24	1.4	14	34	220	3	1.5	0.02	1	
SD or min-max		0.2	9	0.4	13-15	7	148	1-4	0.6-2.4			
n		4	7	7	2	6	3	2	2	1	1	
05_011	Gumvine, fruit, raw	2.9	70	1.4	116	29	1128	114	1.8	0.23		
SD or min-max		0.4	21	0.7	35	5	33	4	0.4	0.23		
n		3	5	5	3	4	3	3	3	4		
05_012	Jujube, fresh pulp, raw	0.5	42	0.4	67	23	278	3	0.5	0.05		
SD or min-max			33-51	0.0-0.8								
n		0	2	2	1	1	1	1	1	1		
05_013	Landolphia, pulp, ripe, raw	3.0	62	4.9	74	34	1182	121	1.2	0.32		
SD or min-max		2.2-3.8	57-68	4.4-5.4	60-87	33-35	1171-1192	119-123	0.5-1.8	0.30-0.33		
n		2	2	2	2	2	2	2	2	2	0	
05_014	Lemon, fruit, raw	0.4	22	0.6	16	20	158	5	0.1	0.04	0	
SD or min-max		0.2	4	0.1		6	11	1				
n		4	6	6	1	6	3	3	1	1	1	
05_015	Mango, ripe, fruit, raw	0.7	17	1.0	12	21	172	5	0.6	0.04	1	2
SD or min-max		0.5	7	0.5	5	9	17	3	0.1-1.0	0.02-0.06		
n		5	9	10	3	7	4	3	2	2	1	1
05_016	Orange, raw	0.5	32	0.1	11	19	177	3	0.1	0.05	1	1
SD or min-max		0.0	6	0.0	10-12	5	12	1				
n		3	7	7	2	6	3	3	1	1	1	1
05_017	Papaya, fruit, ripe, raw	0.4	20	0.7	19	15	206	3	1.4	0.02	1	
SD or min-max		0.2	10	0.3	15	5	13	1	2.2	0.01		
n		4	9	9	4	7	3	3	3	3		
05_018	Pineapple, pulp, raw	0.3	22	0.5	9	12	215	2	2.2	0.33	Tr	Tr
SD or min-max		0.0	0	0.0	3-15	3	60	0				
n		2	7	6	2	5	3	3	1	1	1	1
05_019	Soapberry, fruit, raw	1.0	23	3.0	2	90			0.0	0.05		
SD or min-max			22-23	0.0								
n		1	2	2	1	1			1	1		

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
05 Fruits and their products													
05_008	Dattock, dried pulp, raw	71		429			0.30	0.10	3.8				3
n		1		1			1	1	1				1
05_009	Fig, raw	79	0	365	0		0.03	0.06	0.5	0.11	7	0	15
SD or min-max							0.00	0.00	0.0				
n		2	1	1	1		2	2	2	1	1	1	1
05_010	Guava, fruit, raw	95	0	431	0		0.05	0.04	1.3	0.14	49	0	281
SD or min-max							0.01	0.00	0.1				75
n		4	1	3	1		5	5	5	1	1	1	5
05_011	Gumvine, fruit, raw			Tr			0.18	0.03	0.5	0.02			48
SD or min-max							0.15-0.20	0.00	0				0
n		1		0			2	2	2	1			2
05_012	Jujube, fresh pulp, raw	2	0	10	0		0.02	0.03	1.1	0.08			62
SD or min-max							0.01-0.03	0.01-0.04	0.8-1.3				58-66
n		1	1	1	1		2	2	2	1			2
05_013	Landolphia, pulp, ripe, raw			Tr			0.04	0.03	0.8	0.06			12
SD or min-max													
n				1			1	1	1	1			1
05_014	Lemon, fruit, raw	2	0	10	0	0.80	0.05	0.02	0.3	0.06	9	0	46
SD or min-max				8-11			0.01	0.00	0.1	0.04-0.07			
n		2	2	2	1	1	4	4	4	2	1	1	1
05_015	Mango, ripe, fruit, raw	427	0	2193	0	1.40	0.03	0.05	0.4	0.11	31	0	35
SD or min-max				1122		1.00-1.80	0.00	0.00	0.2	0.08-0.13	22		11
n		6	2	4	1	2	7	7	7	2	3	1	7
05_016	Orange, raw	17	0	86	0	0.28	0.04	0.03	0.3	0.08	30	0	47
SD or min-max				30		0.24-0.32	0.03	0.00	0.1	0.06-0.10	29-30		3
n		4	1	3	1	2	5	5	4	2	2	1	5
05_017	Papaya, fruit, ripe, raw	355	0	955	0	Tr	0.03	0.03	0.4	0.02	45	0	59
SD or min-max				13			0.00	0.00	0.0	0.0			11
n		7	1	4	1	1	7	7	7	2	1	1	6
05_018	Pineapple, pulp, raw	15	0	59	0	0.10	0.07	0.03	0.2	0.09	13	0	31
SD or min-max				31			0.01	0.00	0.1	0	11-14		8
n		5	2	3	1	1	6	6	6	2	2	1	6
05_019	Soapberry, fruit, raw	110		360			0.03	0.04	Tr	Tr			52
SD or min-max		60-160					0.02-0.03	0.00-0.07					34-69
n		2		1			2	2	1	1			2

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
05 Fruits and their products									
05_020	Tamarind, fruit pulp, raw	11E, 1B	1.00	(60)250	80.1	2.2	0.2	8.2	[8.4]
SD or min-max n					80.0-80.2 2	2.0-2.3 2	0.0 2		1
05_021	Tamarind, fruit, dried, raw	3B, 11E, 1B, calc. from tamarind fruit pulp,raw	0.47	(271)1143	21.4	4.8	0.6	52.6	18.3
SD or min-max n					21.3-21.4 2	4.4-5.0 2	0.5-0.6 2		1
05_022	Watermelon, fruit, raw	10E, 1P, 5B, 1B, 11E, UK6	1.00	(30)128	92.3	0.5	0.2	6.4	0.3
SD or min-max n					1.5 5	0.1 5	0.1 3		0.1 3
06 Nuts, seeds and their products									
06_001	Cashew nut, raw	11E, 5B, UK6, US22	1.00	(575)2391	5.8	19.0	42.8	27.1	2.9
SD or min-max n					4.0-7.6 2	17.4-20.6 2			1
06_002	Coconut, raw	1P, 5B, 12B, UK6	0.70	(377)1554	45.3	4.6	36.3	3.6	9.0
SD or min-max n					2.2 3	1.2 3	0.3 3		1
06_003	Coconut, mature kernel, fresh, raw	1E, 11E, 16V, 2P, 2B, 1B, 4E, F08	0.70	(387)1596	43.1	3.2	36.6	6.7	9.5
SD or min-max n					1.3 7	0.6 7	1.7 7		0.0 2
06_004	Coconut, immature kernel, fresh, raw	16V, 2P, 1B, 4E	0.30	(162)668	74.0	1.9	13.5	6.5	[3.3]
SD or min-max n					8.0 4	0.2 4	4.5 4		2.9-3.7 2
06_005	Coconut, kernel, dried, raw	11E, 4E, 2B, 1B, F08	1.00	(606)2497	8.6	6.4	56.4	9.7	17.0
SD or min-max n					4.2 4	0.2 4	1.8 4		0 2
06_006	Coconut milk	1B, 2B, US22, F08	1.00	(208)855	72.9	2.0	21.3	0.9	2.2
SD or min-max n					0 2	0 2	0 2		1
06_007	Coconut water	1B, 2B, US22, F08	1.00	(22)91	94.0	0.3	0.3	3.9	1.1
SD or min-max n					0 2	0 2	0 2		1
06_008	Dikanut, kernel, raw	4V, 16V, 4E, FAO	1.00	(704)2905	5.3	8.4	66.9	15.9	[2.2]
SD or min-max n					0.5 3	1.6 3	3.5 3		1
06_009	False sesame seeds, raw	2P, FAO	1.00	(497)2059	5.6	15.0	34.4	23.1	[17.3]
n					1	1	1		1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
05 Fruits and their products												
05_020	Tamarind, fruit pulp, raw	1.0	60	0.7	19	61	308	3				
SD or min-max			59-60									
n		1	2	1	1	1	1	1				
05_021	Tamarind, fruit, dried, raw	2.4	151	2.5	68	119	725		3.9	0.37		
SD or min-max			122-166	2.2-3.1	66-70							
n		1	2	2	1	1	1		1	1		
05_022	Watermelon, fruit, raw	0.3	7	0.2	10	9	113	2	0.1	0.03	Tr	Tr
SD or min-max			1	0.1	1	0	6	1	0.00	0.00		
n		1	5	5	2	3	3	3	3	2	1	1
06 Nuts, seeds and their products												
06_001	Cashew nut, raw	2.4	54	10.4	267	480	552	14	2.1	2.15	24	10
SD or min-max			31-76	2.8-18.0		373-587				2.11-2.20	20-29	
n		1	2	2	1	2	1	1	1	2	2	1
06_002	Coconut, raw	1.2	14	2.3	39	124	379	35	0.8	0.32	810	1
SD or min-max			6	0.4		94-154						
n		1	3	3	1	2	1	1	1	1	1	1
06_003	Coconut, mature kernel, fresh, raw	1.0	17	2.5	36	101	409	20	0.9	0.42	6	1
SD or min-max		0.1	3	0.4	0	5	36	3				
n		4	7	7	2	7	4	4	1	1	1	1
06_004	Coconut, immature kernel, fresh, raw	0.8	19	2.2		111	218	8				
SD or min-max		0.7-0.9	13	0.9		57	190-245	7-9				
n		2	3	3		3	2	2				
06_005	Coconut, kernel, dried, raw	1.9	32	3.4	74	177	617	33	1.5	0.80		
SD or min-max			7	0.0	0	23	29	2				
n		1	3	2	2	3	3	3	1	1		
06_006	Coconut milk	0.7	18	3.3	46	96	220	13	0.6	0.20	6	
SD or min-max			0	0.0	0	0	0	0				
n		1	2	2	2	2	2	2	1	1	1	
06_007	Coconut water	0.4	24	0.1	23	25	280	77	0.1	0.04	1	
SD or min-max			0	0	0	0	0	0				
n		1	2	2	2	2	2	2	1	1	1	
06_008	Dikanut, kernel, raw	1.3	164	1.9		202	16	2	0.3	0.14		
SD or min-max		0.6-1.9	126-202	0.3-0.4		0						
n		2	2	2		2	1	1	1	1		
06_009	False sesame seeds, raw	4.6	805	32.0		443						
n		1	1	1		1						

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
05 Fruits and their products													
05_020	Tamarind, fruit pulp, raw	2		10			0.24	0.07	0.5				10
SD or min-max							0.18-0.30	0.05-0.09	0.4-0.6				9-10
n		1		1			2	2	2				2
05_021	Tamarind, fruit, dried, raw	10		60			0.95	0.28	0.9	0.07			38
SD or min-max									0.30-1.80				
n		1		1			1	1	2	1			1
05_022	Watermelon, fruit, raw	62	0	369	0	0.10	0.03	0.04	0.2	0.09	4	0	7
SD or min-max		22		130			0.01	0.02	0.05	0.07-0.10	4-5		3
n		3	1	3	1	1	4	4	3	2	2	1	4
06 Nuts, seeds and their products													
06_001	Cashew nut, raw	10	0	60	0	0.78	0.64	0.26	1.8	0.45	46		5
SD or min-max							0.63-0.65	0.25-0.26	1.6-2.0	0.42-0.49	25-67		
n		1	1	1	1	1	2	2	2	2	2		1
06_002	Coconut, raw	0	0	0	0	0.73	0.06	0.01	0.5	0.06	30	0	2
SD or min-max							0.05-0.06	0.01-0.02	0.4-0.6				
n		1	1	1	1	1	2	2	2	1	1	0	1
06_003	Coconut, mature kernel, fresh, raw	0	0	0	0	0.73	0.04	0.02	0.5	0.05	26	0	2
SD or min-max							0.01	0.00	0.1	0.01	0	0	0.4
n		1	1	1	1	1	6	6	6	4	2	2	6
06_004	Coconut, immature kernel, fresh, raw	0	0	0			0.09	0.08	0.6	0.02	2		7
SD or min-max							0.07-0.10	0.05-0.10	0.5-0.6	0.00			6-8
n		1	1	1			2	2	2	2	1		2
06_005	Coconut, kernel, dried, raw	0	0	0	0	1.20	0.08	0.08	0.9	Tr	9	0	1
SD or min-max							0	0	0				
n		1	1	2	1	1	2	2	2	1	1	1	2
06_006	Coconut milk	0	0	0	0	0.70	0.03	0.03	0.6	0.03	14		1
SD or min-max													0
n		1	1	1	1	1	1	1	1	1	1		2
06_007	Coconut water	0	0	0	0	0.00	0.03	0.07	0.1	0.03	3	0	2
SD or min-max			0	0			0.00	0.00	0.0	0.00			0
n		1	1	2	1	1	2	2	2	2	1	1	2
06_008	Dikanut, kernel, raw						0.18	0.09	0.7				
SD or min-max							0.16-0.20	0.08-0.10	0				
n							2	2	2				
06_009	False sesame seeds, raw						0.60	0.24	1.1				
n							1	1	1				

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
06 Nuts, seeds and their products									
06_010	Groundnut, dried, raw	12B, 3B, 11E, FAO, UK6	1.00	(578)2437	7.2	24.1	45.0	18.5	6.2
SD or min-max					6.5-7.8	1.3	4.9		
n					2	3	3		1
06_011	Groundnut, seeds, dried, rose, raw	2E, UK6, calc. from groundnut dried, raw	1.00	(567)2354	6.2	23.4	43.2	17.4	7.7
n					1	1	1		1
06_012	Groundnut, seeds, dried, red, raw	2E, UK6, calc. from groundnut dried, raw	1.00	(577)2392	5.1	24.8	45.1	13.3	9.4
n					1	1	1		1
06_013	Melon seeds, raw	3P,1P, 2P, 3P, UK6	1.00	(609)2523	6.4	27.5	49.7	11.3	[3.2]
SD or min-max					0.7	1.9	2.3		2.4-4.0
n					3	3	3		2
06_014	Nitta tree, fermented seeds	3B, 4R, 1E, FAO	1.00	(484)2015	10.5	36.8	30.1	12.8	[7.4]
SD or min-max					6.9-14.0	35.0-38.5	29.0-31.2		
n					2	2	2		1
06_015	Sesame seeds, raw	2P, FAO	1.00	(600)2488	4.4	18.5	49.4	18.6	[3.7]
n					1	1	1	1	1
06_016	Shea nut, seed kernel, dried, raw	2P, FAO		(572)2372	5.7	6.0	43.8	35.5	[5.7]
n					1	1	1		
06_017	Palm nuts, raw	1P, 2P		(502)2072	30.0	1.8	46.8	16.2	[4.3]
SD or min-max					0	0	0		
n					2	2	2		1
07 Meat and poultry and their products									
07_001	Beef liver, raw	2P, 12B, 2B, 4E, US22	1.00	(133)560	71.1	19.1	4.5	3.8	0.0
SD or min-max					1.9	0.3	0.3		
n					3	4	4		1
07_002	Beef, meat, approx. 20%fat, raw	111E, 1E, 3B, DK7	1.00	(244)1013	63.1	17.9	19.2	0.0	0.0
SD or min-max					63.0-63.1	0.6	2.5		
n					2	3	3		1
07_003	Chicken, flesh only, raw	1P, 2B, 1E, 16V, DK7	1.00	(136)571	72.5	20.6	6.0	0.0	0.0
SD or min-max					0.6	1.3	1.4		
n					4	4	4		1
07_004	Lamb, meat not specified, raw	12B, 11E, UK6	1.00	(217)901	65.4	17.2	16.5	0.0	0.0
SD or min-max					60.7-70.0	16.9-17.5	11.5-21.4		
n					2	2	2		1
07_005	Pork, meat, approx. 40%fat, raw	12P, 4E, 16V, DK7	1.00	(405)1671	47.1	12.6	39.4	0.0	0.0
SD or min-max					1.9	0.3	2.3		
n					4	4	4	0	1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
06 Nuts, seeds and their products												
06_010	Groundnut, dried, raw	2.4	53	4.3	185	415	670	2	1.9	0.42	3	20
SD or min-max		2.3-2.5	13	2.4		409-420						
n		2	3	3	1	2	1	1	1	1	1	1
06_011	Groundnut, seeds, dried, rose, raw	2.2	34	3.7	195	336	711		3.7	1.12		
n		1	1	1	1	1	1		1			
06_012	Groundnut, seeds, dried, red, raw	2.3	44	2.3	193	335	791		2.8	1.04		
n		1	1	1	1	1	1		1			
06_013	Melon seeds, raw	3.7	80	6.1	510	867	648	99	4.0	2.39		
SD or min-max			80	1.1		755-978						
n		1	3	3	1	2	1	1	1	1		
06_014	Nitta tree, fermented seeds	2.5	426	22.2	94	243	317	10	3.5	1.44		
SD or min-max			243	11.4-33.0	30-140	225-260	84-550		2.0-5.0			
n		1	3	2	2	2	2	1	2	1		
06_015	Sesame seeds, raw	5.4	1150	15.5		685						
n		1	1	1		1						
06_016	Shea nut, seed kernel, dried, raw	3.3	10	3.8		124						
n												
06_017	Palm nuts, raw	0.9	39	5.0		65						
SD or min-max		0	0	0								
n		1	2	2		1						
07 Meat and poultry and their products												
07_001	Beef liver, raw	1.4	8	9.7	131	360	313	69	3.0	0.50	40	
SD or min-max		1.3-1.4	0.5	0.55		0						
n		2	4	4	1	2	1	1	1	1	0	
07_002	Beef, meat, approx. 20%fat, raw	1.0	10	2.4	28	194	300	70	2.2	0.16	8	1
SD or min-max		0	2	2.1		0						
n		2	3	3	1	2	1	1	1	1	1	1
07_003	Chicken, flesh only, raw	1.0	12	1.2	25	201	300	76	1.0	0.04	12	Tr
SD or min-max		0.0	2	0.2		9						
n		2	4	4	1	3	1	1	1	1	1	1
07_004	Lamb, meat not specified, raw	1.0	9	2.3	20	124	250	90	3.1	0.07	4	6
SD or min-max		0.0	8-10	2.0-2.5		100-148						
n		2	2	2	1	2	1	1	1	1	1	1
07_005	Pork, meat, approx. 40%fat, raw	1.0	11	1.9	12	163	306	61	3.2	0.09	6	1
SD or min-max		0.0	0.5	0.1		22						
n		3	4	4	1	4	1	1	1	1	1	1

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
06 Nuts, seeds and their products													
06_010	Groundnut, dried, raw	2	0	14	0	10.09	1.00	0.13	15.4	0.59	110	0	1
	SD or min-max			12-15			0.79-1.20	0.12-0.13	0.0				
	n	1		2	1	1	2	2	2	1	1	0	1
06_011	Groundnut, seeds, dried, rose, raw				0	10.09	1.00	0.13	15.4	0.59	110	0	1
	n				1	1	1	1	1	1	1	1	1
06_012	Groundnut, seeds, dried, red, raw				0	10.09	1.00	0.13	15.4	0.59	110	0	1
	n				1	1	1	1	1	1	1	1	1
06_013	Melon seeds, raw	Tr	0	Tr	0		0.06	0.64	1.5		58	0	
	SD or min-max						0.01-0.10	0.12-1.15	1.4-1.5				
	n	1	1	1	1		2	2			1	1	
06_014	Nitta tree, fermented seeds	12					0.82	0.56	3.0				5
	SD or min-max						0.55	0.64					
	n	1					3	3	1				1
06_015	Sesame seeds, raw	5		30			0.68	0.19	3.4				Tr
	n			1			1	1	1				
06_016	Shea nut, seed kernel, dried, raw						0.52						
	n												
06_017	Palm nuts, raw												
	SD or min-max												
	n												
07 Meat and poultry and their products													
07_001	Beef liver, raw	495	780	180	1		0.06	0.36	5.7	1.08	290	59	71
	SD or min-max	180-810							5.2-6.2				
	n	2	1	1	1		1	1	2	1	1	1	2
07_002	Beef, meat, approx. 20%fat, raw	16	16	0			0.07	0.19	5.8	0.37	8	2	1
	SD or min-max						0.06-0.07	0.02-0.36					
	n	1	1	0			2	2	1	1	1	1	1
07_003	Chicken, flesh only, raw	12	12	Tr	0	0.22	0.09	0.16	8.4	0.45	10	Tr	Tr
	SD or min-max						0.08-0.10	0.15-0.16	7.7-9.0				
	n	1	1	1	1	1	2	2	2	1	1	1	1
07_004	Lamb, meat not specified, raw	10	10	Tr	1	0.19	0.01	0.02	3.1	0.19	1	2	0
	SD or min-max												
	n	1	1	1	1	1	1	1	1	1	1	1	1
07_005	Pork, meat, approx. 40%fat, raw	0	0		0		0.89	0.18	3.4	0.01	0	1	0
	SD or min-max								2.8-4.0				
	n	1	1		1		1	1	2	1	1	1	1

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
07 Meat and poultry and their products									
07_006	Pork, meat, approx. 24%fat, raw	12P, 4E, 16V, DK7	1.00	(289)1198	56.0	14.5	23.5	4.8	0.0
	SD or min-max				0	0	0		
	n				2	2	2		1
07_007	Rabbit, meat, raw	2B, DK7	1.00	(142)595	70.6	20.7	5.6	2.1	0.0
	n				1				1
08 Eggs and their products									
08_001	Egg, raw	16V, 1E, 11E, 1P, 2P, 12B, 4E, 2B, UK6	1.00	(139)578	76.9	12.1	10.1	0.0	0.0
	SD or min-max				1.5	0.4	0.7		
	n				8	8	8		1
09 Fish and their products									
09_001	Anchovy, fillet, raw	2P, FAO, US22	1.00	(123)518	73.8	18.4	4.8	1.5	0.0
	n				1	1	1		1
09_002	Barracuda, raw	2P, FAO	0.64	(81)342	79.5	18.3	0.6	0.5	0.0
	SD or min-max				77.8-79.5		0.6-1.1		
	n				2	1	2		1
09_003	Mackerel, spanish, raw	16V, 2P, US22, UK6	0.71	(133)561	68.9	21.1	2.8	5.9	0.0
	SD or min-max				4.4	1.9	2.7-2.8		
	n				3	3	2		1
09_004	Sardine, raw	2P, 11E, FAO, UK 6	0.47	(106)447	74.6	19.6	2.7	0.9	0.0
	SD or min-max				74.4-74.8	2.1	0.4		
	n				2	3	3		1
09_005	Tuna, raw	11E, FAO, UK	0.58	(200)837	62.8	23.0	11.5	1.3	0.0
	SD or min-max				58.5-67.1	18.9-27.0	10.0-13.0		
	n				2	2	2		1
09_006	White grouper, raw	3B, FAO, US22	0.60	(87)368	83.8	19.4	1.1	0.0	0.0
	SD or min-max				76.6-91.0	19.2-19.5	1.0-1.1		
	n				2	2	2	1	1
10 Milk and their products									
10_001	Milk, cow, whole, raw	11E, 3B, 7B, 5B, 11E, 8R, 4E, 2P	1.00	(75)312	86.3	3.7	4.6	4.7	0.0
	SD or min-max				1.3	0.4	1.2		
	n				9	11	11		1
10_002	Milk, cow, powder, whole	5B, 11E, 4E, DK7	1.00	(492)2058	4.5	25.3	26.8	37.6	0.0
	SD or min-max				0.8	0.3	0.8		
	n				3	3	3		1
10_003	Milk, goat, whole, raw	2B, 3B, DK7	1.00	(69)286	87.5	3.4	4.4	4.0	0.0
	SD or min-max					0	3.8-4.9		
	n				1	2	2		

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
07 Meat and poultry and their products												
07_006	Pork, meat, approx. 24%fat, raw	1.2	10	2.0	18	153	271	61	3.2	0.10	6	1
	SD or min-max											
	n	1	1	1	1	1	1	1	1	1	1	1
07_007	Rabbit, meat, raw	1.0	22	0.9	25	213	360	67	1.7	0.15	10	1
	n	1	1	1	1	1	1	1	1	1	1	1
08 Eggs and their products												
08_001	Egg, raw	1.0	45	2.4	11	178	141	141	1.3	0.08	11	53
	SD or min-max	0.1	5	0.3		72	12	11				
	n	5	8	8	1	7	4	4	1	1	1	1
09 Fish and their products												
09_001	Anchovy, fillet, raw	1.4	147	3.3	41	174	383	104	1.7	0.21	37	
	n	1	1	1	1	1	1	1	1	1	1	
09_002	Barracuda, raw	1.1	25	1.0		160						
	SD or min-max	1.1-1.4	25-27	0.8-1.0		160-190						
	n	2	2	2		2						
09_003	Mackerel, spanish, raw	1.4	50	1.8	26	201	360	59	0.5	0.06	37	140
	SD or min-max	1.3-1.4	24-75	1.0-2.6		162-240						
	n	2	2	2	1	2	1	1	1	1	1	1
09_004	Sardine, raw	2.3	42	2.1	41	445	397	132	1.5	0.04	37	32
	SD or min-max	1.9-2.6										
	n	2	1	1	1	1	1	1	1	1	1	1
09_005	Tuna, raw	1.5	28	1.4	29	292	240	42	0.6	0.13		27
	SD or min-max											
	n	1	1	1	1	1	1	1	1	1		1
09_006	White grouper, raw	1.4	33	1.3	35	188	511	56	1.3	0.05	39	
	SD or min-max		24-41	1.2-1.4								
	n	1	2	2	1	1	1	1	1	1	1	
10 Milk and their products												
10_001	Milk, cow, whole, raw	0.7	210	0.1	14	92	154	44	0.4	0.02	1	3
	SD or min-max	0.1	166	0.1	12-16	3	150-157	40-48		0.01-0.02		
	n	6	6	5	2	3	2	2	1	2	1	1
10_002	Milk, cow, powder, whole	5.9	970	0.7	113	697	1150	376	4.0	0.21	9	35
	SD or min-max		82	0.1		680-714	1140-1160	371-380				
	n	1	3	3	1	2	2	2	1	1	1	1
10_003	Milk, goat, whole, raw	0.8	133	0.1	14	103	185	45	4.0	0.02		
	SD or min-max		120-145	0.0-0.1	13-14							
	n	1	2	2	2	1	1	1	1	1		

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
07 Meat and poultry and their products													
07_006	Pork, meat, approx. 24%fat, raw	0	0		1		0.65	0.20	3.2	0.29	1	1	0
	SD or min-max												
n		1	1		1		1	1	1	1	1	1	1
07_007	Rabbit, meat, raw	10	10	0	Tr	0.80	0.10	0.17	8.5	0.50	5	10	Tr
	SD or min-max												
n		1	1	1	1	1	1	1	1	1	1	1	1
08 Eggs and their products													
08_001	Egg, raw	207	200	40	2	1.20	0.10	0.35	0.2	0.14	43	2	0
	SD or min-max						0.02	0.07	0.1	0.02	25-60	0	
n		1	1	1	1	1	5	5	6	3	2	3	1
09 Fish and their products													
09_001	Anchovy, fillet, raw	15	15			0.57	0.06	0.26	14.0	0.14	9	1	0
	SD or min-max												
n		1	1			1	1	1	1	1	1	1	1
09_002	Barracuda, raw						0.12	0.09	4.1				
	SD or min-max												
n						1	1	1					
09_003	Mackerel, spanish, raw	16	16		3	0.30	0.09	0.35	8.0	0.70		10	2
	SD or min-max												
n		1	1		1	1	1	1	1	1		1	1
09_004	Sardine, raw	30		Tr	3	0.08	0.02	0.17	8.9	0.43	4	12	Tr
	SD or min-max												
n		1		1	1	1	1	1	1	1	1	1	1
09_005	Tuna, raw	65	65	Tr	18		0.05	0.11	13.5	0.34	13	4	Tr
	SD or min-max												
n		1	1	1			1	1	1	1	1	1	1
09_006	White grouper, raw	30					0.07	0.05	3.4	0.32	10		0
	SD or min-max						0.06-0.07	0.04-0.05	3.0-3.8				
n		1					2	2	2	1	1		1
10 Milk and their products													
10_001	Milk, cow, whole, raw	39	32	17	0	0.17	0.04	0.19	0.3	0.04	7	0	2
	SD or min-max	35-42					0.00	0.06	0.3				0.8
n		2	1	1	1	1	5	5	5	1	1	1	4
10_002	Milk, cow, powder, whole	295	207	140	1	0.50	0.29	1.28	0.7	0.26	40	2	12
	SD or min-max	230-360					0.02	0.13	0.1				11-13
n		2	1	1	1	1	3	3	3	1	1	1	2
10_003	Milk, goat, whole, raw	35	34	6	0	0.03	0.06	0.14	0.6	0.04	1	0	2
	SD or min-max	29-40	28-40	5-7			0.04-0.08	0.13-0.15	0.2-1.0				1-2
n		2	2	2	1	1	2	2	2	1	1	1	2

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
10 Milk and their products									
10_004	Milk, human, mature, raw	4E, 11E, UK6	1.00	(69)288	86.5	1.1	3.1	9.1	
SD or min-max					0	0			
n					2	2			
10_005	Yoghurt, wholemilk, nature	12R, 3B, 4E, 2B, UK6	1.00	(75)313	86.0	3.5	4.2	5.8	0.0
SD or min-max						0.8	1.0		
n					1	4	4		1
11 Fat and oils									
11_001	Butter, cow's milk	11E, 1P, 16V, UK6	1.00	(700)2877	21.0	1.0	77.3	0.0	0.0
SD min-max					0		0		
n					2	1	2		1
11_002	Coconut oil	1P, 2P, 4E, UK6	1.00	(900)3700	0.0	0.0	100.0		
SD min-max					0.0		0.0		
n					2	1	2		
11_003	Groundnut oil	2P, 2B, 1E, 16V, 4E, UK6	1.00	(903)3714	Tr	Tr	99.9	0.0	0.0
SD min-max					0	0	0.1		
n					2	2	5		1
11_004	Palm oil	1E, 16V, 1P, 3E, 5B, 4E, 2P, UK6	1.00	(895)3679	0.6	0.0	99.4	0.0	0.0
SD min-max					0.4	0.0	0.6		
n					5	3	7		1
12 Beverages									
12_001	Beer europe (4.4% alcohol)	3B, UK6	1.00	(35)146	93.9	0.3	0.0	2.0	Tr
n					1	1	1		1
12_002	Beer, maize (estimated 3% alcohol)	4E	1.00	(34)144	93.2	0.6	0.2	3.1	[0.1]
n					1	1	1		1
12_003	Beer millet (estimated 3% alcohol)	16V, 4E	1.00	(41)170	91.0	0.7	0.2	3.9	[1.5]
SD or min-max					90.9-91.0	0.0	0.0		
n					2	2	2		1
12_004	Beer, sorghum (estimated 3% alcohol)	16V, FAO	1.00	(39)161	94.0	0.5	1.6	1.2	
n					1	1			
12_005	Coffee, instant	2B, UK6, US22	1.00	(354)1504	3.1	18.5	0.3	69.3	0.0
n					1	1	1		1
12_006	Palm, wine (estimated 3.8% alcohol)	3B, 12B, 11E	1.00	(34)143	93.7	0.4	0.0	2.5	
SD or min-max					93.4-94.0	0.1	0.0		
n					2	3	3		
12_007	Sap, from palm trees, fresh (0.4% alcohol)	4E, 11E, FAO	1.00	(47)197	88.4	0.3	0.0	11.1	0.0
SD or min-max					0.0	0.0			
n					2	2	1		

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
10 Milk and their products												
10_004	Milk, human, mature, raw	0.2	32	0.2	2	18	60	6	0.3	0.04	1	7
	SD or min-max		0									
	n	1	2	1	1	2	1	1	1	1	1	1
10_005	Yoghurt, wholemilk, nature	0.5	141	0.1	15	112	200	64	4.0	0.02		
	SD or min-max		26	0.1	14-16							
	n	1	3	3	2	1	1	1	1	1		
11 Fat and oils												
11_001	Butter, cow's milk	0.2	12	0.2	3	15	12	22	0.1	0.01		54
	SD min-max	0.0										
	n	2	1	1	1	1	1	1	1	1		1
11_002	Coconut oil	Tr	Tr	1.5	Tr	2	Tr	Tr	Tr	Tr	Tr	Tr
	SD min-max		0	0.0-3.0								
	n	1	2	2	1	1	1	1	1	1	1	1
11_003	Groundnut oil	0.0	Tr	Tr	Tr	Tr	Tr	Tr	Tr	Tr	Tr	Tr
	SD min-max	0.0										
	n	2	1	1	1	1	1	1	1	1	1	1
11_004	Palm oil	0.1	3	0.4	Tr	5	Tr	Tr	Tr	Tr	Tr	Tr
	SD min-max	0.0	3.4			4						
	n	3	4	1	1	3	1	1	1	1	1	1
12 Beverages												
12_001	Beer europe (4.4% alcohol)	0.1	8	0.1	7	14	32	6	0.0	0.01	Tr	Tr
	n	1	1	1	1	1	1	1	1	1	1	1
12_002	Beer, maize (estimated 3% alcohol)	0.3	4	1.4		6						
	n	1	1	1		1						
12_003	Beer millet (estimated 3% alcohol)	0.3	8	2.7		16	212	24				
	SD or min-max		0	0.0		0						
	n		2	2		2	1	1				
12_004	Beer, sorghum (estimated 3% alcohol)	0.2	1	0.6		7						
	n	1	1	1		1						
12_005	Coffee, instant	8.8	150	4.4	320	303	3750	39	1.1	0.62	9	Tr
	n	0	1	1	1	1	1	1				
12_006	Palm, wine (estimated 3.8% alcohol)	0.2	2	0.5	9	5			5.0	0.01		
	SD or min-max	0.0	0	0.5	8-10							
	n	2	3	3	2	1			1	1		
12_007	Sap, from palm trees, fresh (0.4% alcohol)	0.2	2	0.4		6						
	SD or min-max		0	0.0		0						
	n	1	2	2		2						

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β-carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
10 Milk and their products													
10_004	Milk, human, mature, raw	62	58	24	0		0.02	0.04	0.2	0.01	5	0	1
	SD or min-max												
	n	1	1	1	1		1	1	1	1	1	1	1
10_005	Yoghurt, wholemilk, nature	33	30	16	Tr	0.11	0.04	0.17	0.4	0.04	2	Tr	1
	SD or min-max	33-34											
	n	2	1	1	1	1	2	2	1	1	1	1	2
11 Fat and oils													
11_001	Butter, cow's milk	1060	958	608	1	1.74	Tr	0.01	0.1	Tr	Tr	0	Tr
	SD min-max												
	n	1	1	1	1	1	1	1	1	1	1	1	1
11_002	Coconut oil	Tr	0	Tr	0	0.66	Tr	Tr	Tr	Tr			0
	SD min-max												
	n	1	1	1	1	1	1	1	1	1			1
11_003	Groundnut oil		0	Tr	0	17.20	Tr	Tr	Tr	Tr	Tr	0	0
	SD min-max												
	n		1	1	1	1	1	1	1	1	1	1	1
11_004	Palm oil	5150	0	31500	0	9.50	0.01	0.02	Tr			0	0
	SD min-max	4300-6000		25700-37300									
	n	2	1	2	1	1	1	1	1			1	2
12 Beverages													
12_001	Beer europe (4.4% alcohol)	0		0	0		Tr	0.03	0.7	0.07	5	Tr	0
	n	1		1	1		1	1	1	1	1	1	1
12_002	Beer, maize (estimated 3% alcohol)						0.01	0.03					
	n						1	1					
12_003	Beer millet (estimated 3% alcohol)												
	SD or min-max												
	n												
12_004	Beer, sorghum (estimated 3% alcohol)						0.04	0.04	0.4				
	n						1	1	1				
12_005	Coffee, instant		0	Tr	0	Tr	0.04	0.09	28.2	0.03	3	0	0
	n		1	1	1	1		1	1	1	1	1	1
12_006	Palm, wine (estimated 3.8% alcohol)	0					0.03	0.01	0.3				4
	SD or min-max						0	0					
	n	1					2	2	1				1
12_007	Sap, from palm trees, fresh (0.4% alcohol)						0.02	0.01	4.0				14
	SD or min-max						0.01-0.03	0.00					
	n						2	2	1				1

Code	Foodname in English	Source/Biblioid	Edible conversion factor	Energy (kcal) kJ	Water (g)	Protein (g)	Fat (g)	Carbohydrate available (g)	Fibre (g)
12 Beverages									
12_008	Tea, infusion	2B, UK6	1.00	(0)2	99.9	0.1	0.0	0.0	Tr
n					1	1	1	1	1
13 Miscellaneous									
13_001	Honey	1E, 4E, 11E, 3B, UK6	1.00	(322)1369	19.2	0.3	0.0	80.2	0.0
SD or min-max					2	4	2		1
n									
13_002	Sugar, white	11E, 1P, 3B, UK6	1.00	(369)1567	7.6	0.0	0.0	92.2	0.0
SD or min-max						0.0	0.0		
n					1	2	2		1
13_003	Vinegar	2B, UK6	1.00	(27)116	93.0	0.2	0.0	6.6	0.0
n					1	1	1		1

Code	Foodname in English	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Se (mcg)	I (mcg)
12 Beverages												
12_008	Tea, infusion	Tr	2	0.1	1	1	19	Tr	Tr	Tr	Tr	Tr
n		1	1	1	1	1	1	1	1	1	1	1
13 Miscellaneous												
13_001	Honey	0.3	11	0.6	10	4	20	3	2.0	0.05	1	Tr
SD or min-max			0	0.0								
n		1	3	2	1	2	1	1	1	1	1	1
13_002	Sugar, white	0.2	10	0.2	2	1	5	5	0.1	0.12	Tr	Tr
SD or min-max			0	0.0								
n		1	2	2	1	1	1	1	1	1	0	1
13_003	Vinegar	0.2	15	0.5	20	25	90	20				
n		1	1	1	1	1	1	1				

Code	Foodname in English	Vit A (mcg)	Retinol (mcg)	β -carotene equi.(mcg)	Vit D (mcg)	Vit E (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Vit C (mg)
12 Beverages													
12_008	Tea, infusion		0	0	0	0.00	0.00	Tr	0.1	Tr	5	0	0
n			1	1	1	1	1	1	1	1	1	1	1
13 Miscellaneous													
13_001	Honey	0	0	0	0		0.00	0.06	0.4	Tr	Tr	0	2
SD or min-max							0.00	0.05-0.06	0.3-0.5				
n		1	1	1	1		2	2	2	1	1	1	1
13_002	Sugar, white	0	0	0	0		0.00	0.00		0.00	0		0
SD or min-max		0					0.00	0.00					2
n		1	1	1	1		2	2	1	1	1		
13_003	Vinegar		0	0	0	0.00	0.00	0.00	0.0	0.00	0	0	0
n			1	1	1	1	1	1	1	1	1	1	1

Index

Code	Foodname in English	Scientific name	Page number
05_001	African locust bean, fruit, pulp, raw	Parkia biglobosa	16-18
09_001	Anchovy, raw	Engraulis encrasicolus	28-30
05_002	Avocado, pulp, raw	Persea americana	16-18
03_001	Bambara groundnut, dried, raw	Voandzeia subterranea	10-12
03_002	Bambara groundnut, seeds, red, dried, raw	Voandzeia subterranea	10-12
03_003	Bambara groundnut, seeds, white, dried, raw	Voandzeia subterranea	10-12
05_003	Banana, fruit, raw	Musa sapientum	16-18
05_004	Baobab, fruit, pulp, raw	Adansonia digitata	16-18
04_002	Baobab, leaves, dried, raw	Adansonia digitata	10-12
04_001	Baobab, leaves, raw	Adansonia digitata	10-12
09_002	Barracuda, raw	Sphyræna spp.	28-30
04_003	Bean, raw	Phaseolus vulgaris	10-12
07_001	Beef liver, raw	Bos taurus	25-27
07_002	Beef, meat, approx. 20%fat, raw	Bos taurus	25-27
12_001	Beer europe (4.4% alcohol)		31-33
12_003	Beer millet (estimated 3% alcohol)		31-33
12_002	Beer, maize (estimated 3% alcohol)		31-33
12_004	Beer, sorghum (estimated 3% alcohol)		31-33
05_005	Bread fruit, raw	Artocarpus altilis/Artocarpus communis	16-18
04_004	Bush okro leaves, raw	Corchorus olitorius	13-15
11_001	Butter, cow's milk		31-33
04_005	Cabbage, raw	Brassica oleracea	13-15
04_007	Carrot, boiled	Daucus carota	13-15
04_006	Carrot, raw	Daucus carota	13-15
05_006	Cashew apple, pulp, raw	Anacardium occidentale	16-18
06_001	Cashew nut, raw	Anacardium occidentale	22-24
02_004	Cassava flour	Manihot esculenta	7-9
02_003	Cassava, boiled	Manihot esculenta/Manihot utilissima	7-9
02_002	Cassava, dried, raw	Manihot esculenta	7-9
04_008	Cassava, fresh leaves, raw	Manihot esculenta/utilissima Manihot esculenta/Manihot utilissima	13-15
02_001	Cassava, raw	Manihot esculenta	7-9
07_003	Chicken, flesh only, raw	Gallus gallus	25-27
06_006	Coconut milk	Cocos nucifera	22-24
11_002	Coconut oil	Cocos nucifera	31-33
06_007	Coconut water	Cocos nucifera	22-24
06_004	Coconut, immature kernel, fresh, raw	Cocos nucifera	22-24
06_005	Coconut, kernel, dried, raw	Cocos nucifera	22-24
06_003	Coconut, mature kernel, fresh, raw	Cocos nucifera	22-24
06_002	Coconut, raw	Cocos nucifera	22-24
04_009	Cocoyam leaves, raw	Xanthosoma spp.	13-15
02_006	Cocoyam, boiled	Xanthosoma spp.	7-9
02_005	Cocoyam, raw	Xanthosoma spp.	7-9
12_005	Coffee, instant		31-33
03_007	Cowpea, boiled	Vigna unguiculata	10-12
03_004	Cowpea, dried, raw	Vigna unguiculata	10-12
04_010	Cowpea, leaves, raw	Vigna unguiculata	13-15
03_005	Cowpea,seeds,whole,dried,black	Vigna unguiculata	10-12

Code	Foodname in English	Scientific name	Page number
03_006	Cowpea,seeds,whole,dried,white	Vigna unguiculata	10-12
05_008	Dattock, dried pulp, raw	Detarium senegalense	19-21
05_007	Dattock, fresh pulp, raw	Detarium senegalense	16-18
06_008	Dikanut, kernel, raw	Irvingia gabonensis	22-24
04_011	Drumstick tree, fresh leaves, raw	Moringa oleifera	13-15
08_001	Egg, raw		28-30
04_013	Eggplant, leaves, raw	Solanum melongena	13-15
04_012	Eggplant, raw	Solanum melongena	13-15
04_014	False sesame leaves, dried, raw	Ceratotheca sesamoides	13-15
06_009	False sesame seeds, raw	Ceratotheca sesamoides	22-24
05_009	Fig, raw	Ficus gnaphalocarpa	19-21
01_002	Fonio, black, whole grain, raw	Digitaria iburua	1-3
01_003	Fonio, white, whole grain, boiled	Digitaria exilis	1-3
01_001	Fonio, white, whole grain, raw	Digitaria exilis	1-3
04_015	Garlic, raw	Allium sativum	13-15
11_003	Groundnut oil	Arachis hypogea	31-33
06_010	Groundnut, dried, raw	Arachis hypogea	25-27
06_012	Groundnut, seeds, dried, red, raw	Arachis hypogea	25-27
06_011	Groundnut, seeds, dried, rose, raw	Arachis hypogea	25-27
05_010	Guava, fruit, raw	Psidium guajava	19-21
05_011	Gumvine, fruit, raw	Saba senegalensis	19-21
13_001	Honey		34-35
05_012	Jujube, fresh pulp, raw	Ziziphus zizyphus	19-21
07_004	Lamb, meat not specified, raw	Ovis aries	25-27
05_013	Landolphia, pulp, ripe, raw	Landolphia heudelotii	19-21
04_016	Leaves of roselle, raw	Hibiscus sabdariffa	13-15
05_014	Lemon, fruit, raw	Citrus limon	19-21
09_003	Mackerel, spanish, raw	Scomberomorus maculatus	28-30
01_014	Maize, combined varieties, raw	Zea mays	1-3
01_010	Maize, DMR-ESR-W variety, dried, raw	Zea mays var. DMR-ESR-W	1-3
01_009	Maize, Gbaévé variety, dried, raw	Zea mays var. Gbaévé	1-3
01_013	Maize, Gnonli variety, dried, raw	Zea mays var. Gnonli	1-3
01_008	Maize, Gougba variety, dried, raw	Zea mays var. Gougba	1-3
01_011	Maize, POZA - RICA 7843 - SR variety, dried, raw	Zea mays var. POZA - RICA 7843 - SR	1-3
01_012	Maize, TZPB-SR variety, dried, raw	Zea mays var. TZPB-SR	1-3
01_005	Maize, white, whole, boiled	Zea mays	1-3
01_004	Maize, white, whole, dried, raw	Zea mays	1-3
01_007	Maize, yellow, boiled	Zea mays	1-3
01_006	Maize, yellow, dried, raw	Zea mays	1-3
05_015	Mango, ripe, fruit, raw	Mangifera indica	19-21
06_013	Melon seeds, raw	Cucumeropsis edulis	25-27
10_002	Milk, cow, powder, whole		28-30
10_001	Milk, cow, whole, raw		28-30
10_003	Milk, goat, whole, raw		28-30
10_004	Milk, human, mature, raw		31-33
01_016	Millet, whole grain, boiled	Pennisetum spp.	1-3
01_015	Millet, whole grain, raw	Pennisetum spp.	1-3
06_014	Nitta tree, fermented seeds	Parkia biglobosa	25-27
04_017	Okra, fresh, raw	Hibiscus esculentus	16-18
04_018	Onion, raw	Allium cepa	16-18
05_016	Orange, raw	Citrus sinensis	19-21
06_017	Palm nuts, raw	Elaeis guineensis	25-27

Code	Foodname in English	Scientific name	Page number
11_004	Palm oil	<i>Elaeis guineensis</i>	31-33
12_006	Palm, wine (estimated 3.8% alcohol)		31-33
05_017	Papaya, fruit, ripe, raw	<i>Carica papaya</i>	19-21
01_033	Pearl millet, boiled	<i>Pennisetum glaucum</i>	4-6
01_032	Pearl millet, combined varieties, raw	<i>Pennisetum glaucum</i>	4-6
01_017	Pearl millet, raw	<i>Pennisetum glaucum</i>	1-3
01_019	Pearl millet, variety ikmp 1, raw	<i>Pennisetum glaucum</i> var. ikmp 1	1-3
01_028	Pearl millet, variety ikmp 10, raw	<i>Pennisetum glaucum</i> var. ikmp 10	4-6
01_029	Pearl millet, variety ikmp 11, raw	<i>Pennisetum glaucum</i> var. ikmp 11	4-6
01_030	Pearl millet, variety ikmp 12, raw	<i>Pennisetum glaucum</i> var. ikmp 12	4-6
01_031	Pearl millet, variety ikmp 13, raw	<i>Pennisetum glaucum</i> var. ikmp 13	4-6
01_020	Pearl millet, variety ikmp 2, raw	<i>Pennisetum glaucum</i> var. ikmp 2	1-3
01_021	Pearl millet, variety ikmp 3, raw	<i>Pennisetum glaucum</i> var. ikmp 3	1-3
01_022	Pearl millet, variety ikmp 4, raw	<i>Pennisetum glaucum</i> var. ikmp 4	1-3
01_023	Pearl millet, variety ikmp 5, raw	<i>Pennisetum glaucum</i> var. ikmp 5	1-3
01_024	Pearl millet, variety ikmp 6, raw	<i>Pennisetum glaucum</i> var. ikmp 6	1-3
01_025	Pearl millet, variety ikmp 7, raw	<i>Pennisetum glaucum</i> var. ikmp 7	4-6
01_026	Pearl millet, variety ikmp 8, raw	<i>Pennisetum glaucum</i> var. ikmp 8	4-6
01_027	Pearl millet, variety ikmp 9, raw	<i>Pennisetum glaucum</i> var. ikmp 9	4-6
01_018	Pearl millet, variety ikmv 8201, raw	<i>Pennisetum glaucum</i> var. ikmv 8201	1-3
05_018	Pineapple, pulp, raw	<i>Ananas comosus</i>	19-21
02_008	Plantain, ripe, boiled	<i>Musa paradisiaca</i>	7-9
02_007	Plantain, ripe, raw	<i>Musa paradisiaca</i>	7-9
07_006	Pork, meat, approx. 24%fat, raw	<i>Sus domestica</i>	25-27
07_005	Pork, meat, approx. 40%fat, raw	<i>Sus domestica</i>	28-30
02_010	Potato, boiled	<i>Solanum tuberosum</i>	7-9
02_009	Potato, raw	<i>Solanum tuberosum</i>	7-9
07_007	Rabbit, meat, raw	<i>Oryctolagus cuniculus</i>	28-30
01_035	Rice, brown, boiled	<i>Oryza sativa</i>	4-6
01_034	Rice, brown, raw	<i>Oryza sativa</i>	4-6
01_036	Rice, polished, raw	<i>Oryza sativa</i>	4-6
01_038	Rice, white, boiled	<i>Oryza sativa</i>	4-6
01_037	Rice, white, raw	<i>Oryza sativa</i>	4-6
12_007	Sap, from palm trees, fresh (0.4% alcohol)		31-33
09_004	Sardine, raw	<i>Sardinella aurita/eba</i>	28-30
06_015	Sesame seeds, raw	<i>Sesamum</i> spp.	25-27
06_016	Shea nut, seed kernel, dried, raw	<i>Butyrospermum parkii</i>	25-27
05_019	Soapberry, fruit, raw	<i>Aphania senegalensis</i>	19-21
01_042	Sorghum, whole grain, boiled	<i>Sorghum bicolor</i>	4-6
01_039	Sorghum, whole grain, raw	<i>Sorghum bicolor</i>	4-6
01_041	Sorghum, whole grain, red, raw	<i>Sorghum bicolor</i>	4-6
01_040	Sorghum, whole grain, white, raw	<i>Sorghum bicolor</i>	4-6
03_008	Soya bean, dried, raw	<i>Glycine max</i>	10-12
13_002	Sugar, white		34-35
02_012	Sweet potato, boiled	<i>Ipomoea batatas</i>	7-9
02_011	Sweet potato, raw	<i>Ipomoea batatas</i>	7-9
02_014	Sweet potato, yellow, boiled	<i>Ipomoea batatas</i>	7-9
02_013	Sweet potato, yellow, raw	<i>Ipomoea batatas</i>	7-9
05_020	Tamarind, fruit pulp, raw	<i>Tamarindus indica</i>	22-24
05_021	Tamarind, fruit, dried, raw	<i>Tamarindus indica</i>	22-24

Code	Foodname in English	Scientific name	Page number
04_019	Tamarind, leaves, raw	Tamarindus indica	16-18
02_016	Taro, tuber, boiled	Colocasia esculenta	7-9
02_015	Taro, tuber, raw	Colocasia esculenta	7-9
04_020	Taro, young leaves, raw	Colocasia esculenta	16-18
12_008	Tea, infusion		34-35
04_021	Tomato, raw	Lycopersicon esculentum	16-18
09_005	Tuna, raw	Thunnus spp.	28-30
04_022	Vernonia, leaves, raw	Vernonia amygdalina	16-18
13_003	Vinegar		34-35
02_017	Water yam, raw	Dioscorea alata	10-12
02_018	Water yam, tuber, boiled	Dioscorea alata	10-12
05_022	Watermelon, fruit, raw	Citrullus lanatus	22-24
01_043	Wheat flour, white	Triticum spp.	4-6
09_006	White grouper, raw	Epinephelus aeneus	28-30
02_020	Yam tuber, boiled	Dioscorea spp.	10-12
02_019	Yam tuber, raw	Dioscorea spp.	10-12
10_005	Yoghurt, wholemilk, nature		31-33

References

- Achigan-Dako, E., Pasquini, M., Assogba-Comlan, F., Sognigbé, N., Dansi, A., Ambrose-Oji, B.** 2009. Traditional vegetables in Benin: Diversity, distribution, ecology, agronomy and utilisation. Darwin Initiative, INRAB. (biblioid 10E)
- Asibey-Berko, E., Tayie, F. A. K.** 1999. Proximate analysis of some underutilized Ghanaian vegetables. Ghana Journal of Science, 39, 91-96. (biblioid 4P)
- Babalola, S. O., Babalola, A. O., Aworh, O. C.** 2001. Compositional attributes of roselle (*Hibiscus sabdariffa* L.). The Journal of Food Technology in Africa 6(4), 133-134. (biblioid 4B)
- Bayane, Y.** 2001. Etude comparative de la qualité nutritionnelle des différentes variétés de mils penicillaires (*Pennisetum glaucum* L.) Br. cultivées au Burkina Faso. Mémoire de DEA, UFR/SVT - Université de Ouagadougou, Burkina Faso. (biblioid 20R)
- Bognár, A.** 2002. *Tables of weight yield of food and retention factors of food constituents for the calculation of nutrition composition of cooked foods (dishes)*. Bundesforschungsanstalt für Ernährung, Karlsruhe. Available at: http://www.bfel.de/cdn_045/nn_784780/SharedDocs/Publikationen/Berichte/bfe-r-02-03.templateId=raw.property=publicationFile.pdf/bfe-r-02-03.pdf
- Ciqual.** 2008. French Food Composition Table. Available at <http://www.afssa.fr/TableCIQUAL/index.htm> (biblioid F08)
- Combassere, A. R.** 2007. Etude des profils nutritionnels et technologiques des céréales (mil, sorgho, maïs) stockées à la SONAGESS (Société Nationale de Gestion des Stocks). Mémoire de DESS, UFR/SVT - Université de Ouagadougou, Burkina Faso. (biblioid 11R)
- Dabire, D. B.** 2002. Analyse biochimique et microbiologique des yaourts et laits fermentés. Mémoire de DEA, UFR/SVT - Université de Ouagadougou, Burkina Faso. (biblioid 12R)
- DANA** Table des valeurs nutritives de quelques aliments 1994. Direction de l'Alimentation et de la Nutrition Appliquée (DANA). Ministère du Développement Rural. (biblioid 4E)
- DANSE** 2006. Aliments Africains. (biblioid 3B)
- Danish** food composition databank. 2010. 7.01 edition. Available at http://www.foodcomp.dk/v7/fcdb_search.asp (biblioid DK7)
- Drame, A., Keita, A.** 1998). Table de composition chimique des aliments consommés en Guinée. Mémoire de diplôme de fin d'études supérieures, Université Gamal Abdel Nasser de Conakry. (biblioid 11E)
- Endrias, A.** 2006. Bio-raffinage de plantes aromatiques et médicinales appliqué à l'*Hibiscus sabdariffa* L. et à l'*Artemisia annua*. Thèse de Doctorat en Pharmacie, Faculté de Médecine et Pharmacie, Université Cheikh Anta Diop de Dakar. (biblioid 11B)
- Enujiugha, V. N.** 2003. Chemical and functional characteristics of conophor nut. Pakistan Journal of Nutrition, 2(6), 335-338. (biblioid 3V)
- Eyson, K. K., Ankrah, E. K.** 1975. Composition of foods commonly used in Ghana. Food Research Institute, Council for Scientific and Industrial Research, Accra, Ghana. (biblioid 2P)
- Fagbemi, T. N.** 2007. Effects of processing on the nutritional composition of fluted pumpkin (*Telfairia occidentalis*) seed flour. Nigerian Food Journal, 25(1), 1-22. (biblioid 6V)

- FAO and USDA.** 1968. *Food Composition Table for Use in Africa.* FAO, Rome. (biblioid FAO)
- Favier, J. C., Ireland-Ripert, J., Laussuck, C., Feinberg, M.** 1993. Répertoire général des aliments. 3 Table de composition des fruits exotiques, fruits de cueillette d'Afrique, Institut Français de Recherche Scientifique pour le Développement en Coopération (ORSTOM), Centre National d'Etudes Vétérinaires et Alimentaires (CNEVA), Centre Informatique sur la Qualité des Aliments (CIQUAL), Institut National de la Recherche Agronomique (INRA), TEC & DOC, 207. (biblioid 1B)
- Favier, J.C., Ireland-Ripert, J., Toque, C., Feinberg, M.** 1995. Répertoire général des aliments. Table de composition, CNEVA-CIQUAL - TEC & DOC - INRA, 897. (biblioid 2B)
- Ghana Common Foods. Nutrition and Food Science Dept, University of Ghana, Legon. (biblioid 3P)
- Greenfield, H. & Southgate, D.A.T.** 2003. *Food composition data – production, management and use.* FAO, Rome. Available at: <ftp://ftp.fao.org/docrep/fao/008/y4705e/y4705e00.pdf>
- Jean Mathos, K.** 2008. Evaluation de la teneur en plomb dans les légumes -feuilles d'oignon cultivés dans la région de Conakry. Mémoire de diplôme de fin d'études supérieures, Université Gamal Abdel Nasser de Conakry. (biblioid 14E)
- Klensin, J.C., Feskanich, D., Lin, V., Truswell, S.A. & Southgate, D.A.T.** 1989. *Identification of Food Components for INFOODS Data Interchange.* UNU, Tokyo. In PDF file: Introduction pp. 5-15 and pp. 72-90 to find tagnames. Available at: <http://www.unu.edu/unupress/unupbooks/80734e/80734E00.htm> and as PDF file at <ftp://ftp.fao.org/es/esn/infoods/Klensinetal1989Identificationoffoodcomponents.pdf>.
- Matokot, N. C. G.** 2003. Etude de la production et caractérisation physico-chimique et microbiologique de la farine de maïs fermenté: cas de l'entreprise C.TRA.PA. Mémoire de DESS, UFR/SVT - Université de Ouagadougou, Burkina Faso. (biblioid 17R)
- McCance and Widdowson's.** 2002. 6th Summary Edition, 'The Composition of Foods, *Food Standards Agency and Institute of Food Research, Royal Society of Chemistry, Cambridge.* (biblioid UK6)
- Mikode, D. A., Alimi, I. I., Zinsou, I. S., Assongba, H. G., Houngbenou, J. E.** 2006. Table de composition alimentaire de quelques aliments locaux béninois. Project Afrofoods DANA/FAO. Direction de l'Alimentation et de la Nutrition Appliquée (DANA), Rapport, 7. (biblioid 3E)
- Millogo, V.** 2010. Milk production of hand milked dairy cattle in Burkina Faso. Doctorate Thesis n° 2010:4, Swedish university of Agricultural Sciences, Sweden. (biblioid 8R)
- Mitchikpe, E., Dossa, R., Ategbo, E. A., Van Raaj, J. M. A., Hulshof, P. J. M., Kok, F. J.** 2008. The supply of bioavailable iron and zinc may be affected by phytate in Beninese children. *Journal of food composition and analysis* 21, 17-25. (biblioid 2E)
- Mouquet-Rivier, C., Icard-Vernière, C., Guyot, J-P., Tou, E-H., Rochette, I., Trèche, S.** 2008. Consumption pattern, biochemical composition and nutritional value of fermented pearl millet gruels in Burkina Faso. *International Journal of Food Sciences and Nutrition*, 59(7-8), 716-729. (biblioid 2R)
- Ndiayel, L.** 1993. Contribution à l'étude de l'activité anti-drépanocytaire du *Ficus gnaphalocarpa* (Miq.) Stend. Thèse de Doctorat en Pharmacie, Faculté de Médecine et Pharmacie. (biblioid 10B)
- Ndong, M., Wade, S., Dossou, N., Guiro, A.T., Gning, R. D.** 2007. Valeur nutritionnelle du Moringa Oleifera, Etude de la biodisponibilité du fer, effet de l'enrichissement de divers plats traditionnels sénégalais avec la poudre des feuilles. *African Journal of Food Agriculture Nutrition and Development*, 7(3). (biblioid 6B)

Nutritional content of some typical African Foods. Nutrition & Food Science Dept, University of Ghana, Legon. (biblioid 1P)

Obasi, N. E., Wogu, C. O. 2008. Effect of soaking time on proximate and mineral compositions and anti-nutritional factors of yellow maize (*Zea mays*). Nigerian Food Journal, 26(2), 69-77. (biblioid 13V)

ORANA. 1993. Table de composition, nouvelle édition. (biblioid 3B – Same values as DANSE, 2006 for the selected foods)

O.R.S.T.O.M., Perisse, J., Le Berre, S., Bergeret, B., Masseyeff, R. 1957. Tables de Composition de quelques aliments tropicaux. Travail des Sections de Nutrition de l'Office de la Recherche Scientifique et Technique Outre-Mer. Extrait des "Annales de la Nutrition et de l'Alimentation, Vol. XI, No 5. (biblioid 12B)

Oguntona, E. B., Akinyele, I. O. 1995. Nutrient composition of commonly eaten foods in Nigeria - Raw, processed and prepared. Ibadan, Nigeria: Food Basket Foundation Publication Series (ISBN 987-31106-3-2), 131. (biblioid 16V)

Onyeike, E. N., Acheru, G. N. 2002. Chemical composition of selected Nigerian oil seeds and physicochemical properties of the oil extracts. Food Chemistry, 77, 431-437. (biblioid 4V)

Parkouda, C., Diawara, B., Ganou, L., Lamien, N. 2007. Potentialités nutritionnelles des produits de 16 espèces fruitières locales au Burkina Faso. Science et technique, Sciences appliquées et Technologies, vol. 1, 35-47. (biblioid 4R)

SQR BENIN Pourquoi manger les produits vivriers de saison. Guide pour l'alimentation et la nutrition durables. 2008. Série "Accès au marché local". ONASA, VECO, SLOW FOOD, CTA. (biblioid 1E)

Sene, A. 1993. Contribution à l'étude de la composition chimique des fleurs de *Tamarindus indica* L (Caesalpinaceae), utilisées dans l'alimentation des sérères. Thèse de doctorat en Pharmacie, Faculté de Médecine et Pharmacie. (biblioid 9B)

Souci, Fachmann, Kraut. 2008. La composition des aliments. Tableaux des valeurs nutritives, 7ème édition, revue et complétée. (biblioid 5B)

Tall, A. 2000. Contribution à l'étude de l'activité anti-inflammatoire du décocté lyophilisé des racines de *Moringa oleifera* (Moringaceae). Thèse de doctorat en Pharmacie, Faculté de Médecine et Pharmacie, Université Cheikh Anta Diop de Dakar. (biblioid 8B)

Technologie Alimentaire (2002). Table de composition de dix produits alimentaires sénégalais, complément rapport. Retrieved April 2010 from: www.ita.sn. (biblioid 7B)

USDA database standard release 22. 2010. Available at <http://www.ars.usda.gov/Services/docs.htm?docid=8964> (biblioid US22)