

ANNEX B.

TSNI EXPERIENCE WITH THE TESTING AND PROMOTION OF DRIED ORANGE-FLESHED SWEETPOTATO (OFSP) CHIPS

Ideally, if all households had access to valley bottom land with residual moisture during the dry season, farmers would be able to produce sweetpotato roots year-round, storing them “in-the-ground” until need for consumption or sale. However, in drought prone areas of Central Zambezia, access to good valley bottom land is often limited and therefore, the project in year one explored the potential for promoting the slicing and drying of OFSP as a strategy for attaining year-round supply of OFSP within the household. Based on results obtained in OFSP drying trials, in year two, extension personnel widely promoted slicing and drying of OFSP in the shade of the tree. This annex describes research undertaken during the project period to investigate the best drying method for local conditions and the beta-carotene content of dried chips of two of the most popular OFSP varieties.

Drying sweetpotato roots, not leaves, is practiced in Southern Zambia. At baseline, 49% of intervention households and 35% of Control households reported having experience slicing and drying white-flesh sweetpotato roots as chips. Traditionally, the sweetpotatoes are sliced into round chips 2-3 mm in thickness; the sliced chips are placed on a mat in direct sunlight. The dried chips are later re-hydrated to make porridge. Typically drying takes one to two days to complete.

Before promoting drying of OFSP, it was important to determine whether this could be done without significant loss of beta-carotene content. To address this issue, in September 2003, the project conducted a small drying trial using the darkest orange flesh variety being distributed, Resisto. The desire was to slightly modify the existing practice to facilitate adoption by resource-poor households. Therefore, three different methods of drying Resisto were tested using chips sliced by women in the village as they normally would (approximately ¼-cm in thickness, peels retained):

- 1) Chips placed on a mat under the shade of a tree
- 2) Chips placed on a mat under the shade of a woven mat typically found in villages
- 3) Chips placed on a mat under the shade of a woven mat that had been covered by black plastic to prevent UV light penetration

The protocol for collecting the experiment was provided by Paul van Jaarsveld of the Medical Research Council in Capetown, South Africa. Subsequent analyses were also done by Dr. van Jaarsveld. To assure a representative sample, the collection protocol was as follows:

- Step 1. Select 3 dried chip samples of 300 grams each from 3 distinct sites on the mat.
- Step 2. Place each 900 gram sample in a clearly labeled brown paper bag.
- Step 3. Add a sachet of desiccant to each paper bag and close.
- Step 4. Place the paper bag within a ziploc plastic bag, seal, and label.

These first samples were analyzed on 18-19 December 2003, approximately 2 months after they were collected. Results are shown in Table 1. Beta-carotene from plant sources is converted into retinol (vitamin A) in the body. Different plant sources have different conversion rates, and the rate used for OFSP is 12 units beta-carotene: 1 unit

retinol. Foods with 100 Retinol Activity Equivalent micrograms ($\mu\text{g RAE}$) per 100 grams of product are considered good dietary sources of vitamin A.

Table 1. Summary of Beta-Carotene Content ($\mu\text{g}/\text{gram}$) and Retinol Activity Equivalents (μg per 100 gram) in Three Samples of Orange-Fleshed Resisto Sweet Potato Dried for Four Days Using Different Techniques in Zambézia Province, Mozambique in 2003

Traditionally Sliced Sweet Potato Variety Resisto Dried for 4 days:	Beta-carotene ($\mu\text{g}/\text{gram}$ dry weight)	Beta-carotene ($\mu\text{g}/100$ grams)	Retinol Activity Equivalent (RAE)/100 grams 12: 1 Conversion Rate
Under Shade of a Tree	126	12600	1,050
Under Shade of a Weaved Mat	117	11700	975
Under Shade of Weaved Mat Covered with Black Plastic	107	10700	892

Samples collected from 20-24 October 2003 and analyzed by Paul Jaarsveld of Medical Research Council in South Africa on 18-19 December 2004.

The dried chips in all three samples were excellent sources of vitamin A. The sample simply dried under the shade of a tree demonstrated a slightly higher RAE value (1050 $\mu\text{g}/100$ gms) than did that shaded by a woven mat (975 $\mu\text{g}/100$ gms). Contrary to expectations, the sample dried under a mat covered with black plastic had the lowest RAE value (892 $\mu\text{g}/100$ gms).

Based on these results, the project began promoting the idea of drying OFSP under the shade of the tree during its 2004 season. Thirty-nine percent of intervention households did dry OFSP in 2004, and three-quarters of them reported drying under the desired shade conditions. Among those who did not dry, the main reason was that they lacked a sufficient quantity of roots (42%), followed by lack of time (19%), dislike of the taste of dried sweetpotato (18%), and unaccustomed to the practice (13%).

While this marginal change in behavior is relatively easy to adopt, the project still desired to reduce the drying time and improve the quality of dried OFSP chips. Depending on weather conditions, drying times of traditionally sliced roots under the shade can be two to three times longer (3-5 days) than drying in direct sunlight. Slow drying increases the risk of mold or fungus development. Moreover, drying on a mat on the ground increases the likelihood of contamination from soil, animals, etc. Thus, in October 2004, the project dried two varieties of OFSP, one dark orange (Resisto) and one light orange (CN-1448-49) using 6 different treatments to test whether different cutting techniques or drying methods could accelerate drying times while retaining adequate beta-carotene content. One sample for each variety was collected and dried in each intervention district (Mopeia and Namacurra), and two sub-samples were drawn for beta-carotene analysis from each available sample. The six treatments tested and the rationale for their inclusion are summarized below:

Treatment No.	Placement	Type of Root Preparation	Rationale for Inclusion
A	On mat on ground in shade	Cut in traditional slices (with peels)	Practice advocated by project in 2004
B	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	Accelerate drying time
C	On raised table under shade	Cut in traditional slices (with peels)	Accelerate drying time
D	On mat on ground in shade	Cut finely with machine	Accelerate drying time
E	On mat in direct sunlight	Cut in 1-1.5 cm (thick) slices (with peels)	Retain beta-carotene content in direct sunlight
F	On mat in direct sunlight	Cut in traditional slices (with peels)	Traditional practice. Determine amount of beta-carotene lost due to direct sunlight exposure

The drying trials were implemented by agricultural extensionists under the supervision of the World Vision agronomists. The same 2003 procedure for obtaining a 900 gram sample was used for each treatment. However, only two of the four extensionists implemented the protocol correctly in terms of monitoring drying times. In this trial, extensionists were supposed to monitor the drying material twice a day, noting the time when a sample completely dried and immediately pack the dried material. In one case, the extensionist left all samples drying for 5 days, in the second case, the extensionist left all samples drying for 7 days. Thus, it was impossible to determine whether drying times were significantly different between treatments A, B, C, and D. Indications from the other two extensionists indicate that treatment F (traditionally cut and dried in direct sunlight) as expected dried fastest (1.75-2.0 days)¹, and the thickly cut chips dried slowest (4 days), in spite of being in direct sunlight. No conclusive differences in drying times were seen between treatments A, B, C, and D, which varied between 2.25 and 3.25 days. Unfortunately, two samples were incompletely dried and extreme fungus attack during the three months elapsing between collection and beta-carotene analysis resulted in them being excluded from the analysis.

Women participating in the study prepared the sweetpotatoes for the drying trials. Typically, peels are left on, but weevil-infested parts are removed during slicing. If roots are in good condition, 3% or less of weight is lost during the preparation process (Table 2). The chipping machine (treatment D) proved to be very inefficient, with up to 36% of initial weight being lost due the poor placement of the cutting blade. The machine manufacturer (Agro-Alfa) proved unable to rectify the problem after attempting 3 times. Consequently, the machines were not promoted in 2004.

Depending on the amount of material lost during processing, and the drying process itself, the dried chips weight 20 to 35% of the original fresh root (Table 2). For roots in

¹ Days cited are 24 hour days, not the amount of time actually exposed to sunlight.

good condition that are sliced efficiently, a useful rule of thumb is dried chips are one-third of the original fresh root weight.

Results from the beta-carotene analysis are presented in Table 3 by technique and type of variety used. Key findings include:

- 1) On average, the beta-carotene content of dried chips of dark orange Resisto is 3.8 times higher than light orange CN-1448-49. The difference in the intensity of the color of the dried chips can be seen in Figures 1 & 2.
- 2) For both varieties, the highest beta-carotene content was seen among finely cut roots that had been dried on a mat on the ground in the shade.
- 3) Because of the relatively small difference in beta-carotene content among samples cut traditionally that were dried on a mat on the ground in the shade (A), covered with leaves in direct sunlight (B), or on a raised table under shade (C), the least labor intensive method--just drying on the mat under the shade--so far remains the most appropriate for promotion at the household level among these three treatments. If households are willing to invest labor to construct a raised drying table, the dried chips will be cleaner.
- 4) All dried chips, regardless of treatment or variety, exceeded the minimum desired RAE level of 100 µg/100 gms. However, it is important to remember that further loss of beta-carotene is likely to occur during storage and during subsequent re-hydration into porridge. Thus, use of dark orange-fleshed varieties such as Resisto for chipping is superior to use of light orange-fleshed varieties CN-1448-49.
- 5) Contrary to expectations, the beta-carotene in the samples dried in direct sunlight was not completely destroyed. In fact, levels for Resisto were only 21% lower for an average of the two treatments in direct sunlight than for the average of the four treatments not in direct sunlight. Averages between the two categories of treatments hardly differed among the CN-1448-49 samples.
- 6) The RAE level for Resisto dried on a mat under the shade of the tree in 2003 was higher (1,050 µg RAE/100 gms) in 2003 than 2004 (716 µg RAE/100 gms). A longer time elapsed between collection and analysis in 2004 (3 months) than in 2003 (2 months). This may be indicative of the type of loss that may be expected during storage.

In dealing with OFSP, the key challenge is how to dry under humid conditions characterized by Zambézia, and still retain adequate beta-carotene content. Results of this small-scale trial indicate that if a sweetpotato variety is dark orange significant amounts of beta-carotene remain, even when dried under direct sunlight. Therefore, emphasis should be placed on selecting darker orange-fleshed varieties for drying and storage over lighter orange-flesh material. Drying times and product quality need to be improved, particularly if there is any expectation of dried OFSP chips becoming a commercialized product.

Future research needs to explore the following areas:

1. Beta-carotene content in dried chips across a broader range of OFSP varieties, conducting true retention studies whenever possible (i.e. the beta-carotene content of the fresh root is measured as well as the chips dried from that root).
2. The loss of beta-carotene among the most common OFSP varieties in use during storage under village conditions during different times of year and after subsequent re-hydration and/or use in processed products.
3. The types of simple storage practices at the village level that could enhance dried chip quality and beta-carotene retention during storage.
4. The use of solar power or charcoal/wood drying both at the household and medium commercial level to accelerate drying times under humid Zambézian conditions.
5. Low-cost techniques to reduce fungal infections among chips dried under the shade.
6. Follow-up assessments with farmers drying OFSP in 2004 concerning how well the OFSP dried chips stored and tasted after preparing compared to the dried chips from local varieties.

At the present time, there is no existing commercial market for OFSP chips. Given the conversion rate between fresh roots and dried chips, dried OFSP chips would have to sell for at least 3.5 times the price per kilogram of fresh roots. Given the high demand for fresh roots, it is unlikely that a commercial market would develop for dried OFSP chips unless demand emerged from processed product makers seeking a year-round supply of OFSP. Clearly, further research is needed in this area. At the present time, interest in pursuing the improvement of OFSP slicing and drying has as its primary goal the provision the viable extension of available of OFSP in the diet in resource-poor households in drought-prone areas.

Table 2. Summary of Fresh and Dried Weights of Orange-flesh Sweet Potato Sar

Sample No.	Localidade	Placement	Type of Root Preparation	Variety of Sweet Potato	Date Started	Total Time (Days)	% Lost in Slicing or Chipping /% Whole Weight	% Dried Chips/ Whole fresh Weight
1a	Catale	On mat on ground in shade	Cut in traditional slices (with peels)	Resisto	2-Sep-04	3.0	3	31
1b	Catale	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	Resisto	2-Sep-04	2.9	3	31
1c	Catale	On raised table under shade	Cut in traditional slices (with peels)	Resisto	2-Sep-04	2.7	3	31
1d ^b	Catale	On mat on ground in shade	Cut finely with machine	Resisto	2-Sep-04	2.1	6	25
1e	Catale	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	Resisto	2-Sep-04	3.8	0	34
1f	Catale	On mat in direct sunlight	Cut in traditional slices (with peels)	Resisto	2-Sep-04	1.9	3	34
3a	Posto Campo	On mat on ground in shade	Cut in traditional slices (with peels)	CN-1448-49	1-Sep-04	5.1	7 ^a	
3b	Posto Campo	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	1-Sep-04	5.0	6 ^a	
3c	Posto Campo	On raised table under shade	Cut in traditional slices (with peels)	CN-1448-49	1-Sep-04	5.0	11 ^a	
3d	Posto Campo	On mat on ground in shade	Cut finely with machine	CN-1448-49	1-Sep-04	5.0	25 ^a	
3e ^b	Posto Campo	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	CN-1448-49	1-Sep-04	5.0	13 ^a	
3f	Posto Campo	On mat in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	1-Sep-04	1.3	7 ^a	
5a	Mexixine	On mat on ground in shade	Cut in traditional slices (with peels)	Resisto	29-Sep-04	7.0	1	36
5b	Mexixine	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	Resisto	29-Sep-04	7.0	6	35
5c	Mexixine	On raised table under shade	Cut in traditional slices (with peels)	Resisto	29-Sep-04	7.0	1	31
5d	Mexixine	On mat on ground in shade	Cut finely with machine	Resisto	29-Sep-04	7.0	13	25
5e	Mexixine	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	Resisto	29-Sep-04	7.0	1	31
5f	Mexixine	On mat in direct sunlight	Cut in traditional slices (with peels)	Resisto	29-Sep-04	7.0	0	31
4a	Posto Campo	On mat on ground in shade	Cut in traditional slices (with peels)	CN-1448-49	21-Sep-04	3.0	5	26
4b	Posto Campo	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	21-Sep-04	2.3	1	24
4c	Posto Campo	On raised table under shade	Cut in traditional slices (with peels)	CN-1448-49	21-Sep-04	3.2	1	25
4d	Posto Campo	On mat on ground in shade	Cut finely with machine	CN-1448-49	21-Sep-04	3.1	36	15
4e	Posto Campo	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	CN-1448-49	21-Sep-04	4.0	3	19
4f	Posto Campo	On mat in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	21-Sep-04	2.2	9	21

^a Did not follow instructions; did not measure TOTAL dry weight, just 900 gms

^b Samples insufficiently dried; beta-carotene analysis proved impossible due to dampness and fungal

Table 3. Summary of Beta-Carotene Content (ug/gram) and Retinol Activity Equivalents (ug per 100 grams) in Dried Orange-Flesh Sweet Potato Samples from Mopeia and Namacurra Districts, Zambézia Province, 2004

Sample No.	Placement	Type of Root Preparation	Variety of Sweet Potato	Number of Sub-samples Analyzed**	Mean ug B-carotene/g dried chip	Retinol Activity Equivalents (RAE) (ug/100 grams) at 12:1 Conversion Ratio	Ratio of RAE of Resisto: CN 1448-49 by Category
A	On mat on ground in shade	Cut in traditional slices (with peels)	Resisto	4	86.0	716	4.0
B	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	Resisto	4	78.0	652	3.5
C	On raised table under shade	Cut in traditional slices (with peels)	Resisto	4	83.5	697	4.2
D	On mat on ground in shade	Cut finely with machine	Resisto	2	99.0	821	4.3
E	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	Resisto	4	70.5	587	3.4
F	On mat in direct sunlight	Cut in traditional slices (with peels)	Resisto	4	65.0	544	3.1
A	On mat on ground in shade	Cut in traditional slices (with peels)	CN-1448-49	4	21.5	180	
B	Covered with leaves in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	4	22.0	184	
C	On raised table under shade	Cut in traditional slices (with peels)	CN-1448-49	4	19.5	165	
D	On mat on ground in shade	Cut finely with machine	CN-1448-49	4	23.0	191	
E	On mat in direct sunlight	Cut in 1-1.5 cm slices (with peels)	CN-1448-49	2	21.0	172	
F	On mat in direct sunlight	Cut in traditional slices (with peels)	CN-1448-49	4	21.0	177	

**Two samples could not be analyzed due to chips being incompletely dried at time of collected, and hence exhibited extreme fungus growth and dampness at time of analysis. Samples were collected from 1-25 September 2004 and analyzed by Paul Jaarsveld, Medical Research Council, Capetown, South Africa from 9-14 December 2004.

Figure 1.

Drying Treatments on BCRSP Variety *Resisto*: September 2004
(RAE: Retinol Activity Equivalents in g per 100 gms chips)



A. Traditional slicing,
On mat under shade of tree

B. Traditional Slicing,
Covered by leaves in direct sunlight



C. Traditional Slicing,
On raised table under shade



D. Cut finely by machine,
On mat under shade of tree



E. Cut thickly (1-1.5 cms),
On mat in direct sunlight



F. Traditional slicing,
On mat in direct sunlight

Figure 2.

Drying Treatments of BCRSP Variety CN1448-49: September 2004 (RAE: Retinol Activity Equivalents in mcg per 100 gms chips)



A. Traditional slicing,
On mat under shade of tree



B. Traditional Slicing,
Covered by leaves in direct sunlight



C. Traditional Slicing,
On raised table under shade



D. Cut finely by machine,
On mat under shade of tree



E. Cut thickly (1.5cm),
On mat in direct sunlight



F. Traditional slicing,
On mat in direct sunlight

ANNEX C.

**RECIPE FOR GOLDEN BREAD
(PÃO DE OURO)**



GOLDEN BREAD: PÃO DE OURO

Recipe for 44 small breads

- 3 cups (each 300 ml) or 950 grams of boiled and mashed orange-fleshed sweetpotatoes (cooked and peeled before mashing) *or* re-hydrate 350 gms of dried orange-fleshed sweetpotato chips (to re-hydrate: (soak in water 20 minutes, then boil until soft enough to be mashed)
- 1.5 kgs wheat flour (you will need some extra flour for the kneading process)
- 2 level match boxes or 2 tablespoons of yeast
- ½ teaspoon of improver (product sold especially for bread making) *optional*
- 1 teaspoon of salt (or more according to taste)
- 1 liter of water (approximate)

Method of Preparation

1. Begin warming the oven (180° Centigrade) or light the charcoal in charcoal oven.
2. Wash 5 medium size (225 grams each) of orange-fleshed sweetpotatoes and cook them in boiling water. Peel and mash.
3. Mix together the wheat flour, yeast, improver and salt.
4. Add the mashed sweetpotato to the flour mixture and mix again.
5. Add half the water and knead well during 5-10 minutes.
6. Continue adding water little by little, continuing to knead, until the mass does not stick to your hands.
7. Make the bread into the buns of the size you want. It is not necessary, nor desired to let the mass rise before making into buns.
8. Cover the buns with a cloth and leave to rise for 25 minutes in a warm place, for example in the direct sunlight outside.
9. Put a small amount of wheat flour on the base of the sheet where the breads will be baked before placing the raw buns on top.
10. Cook in a hot oven (180° Centigrade).

ANNEX D.

**SEX AND AGE SPECIFIC RECOMMENDED LEVELS OF
CALORIC INTAKE USED TO CALCULATE
ADULT EQUIVALENT UNITS**

Recommended Levels of Energy Intake (Calories/day)¹

Age	Males	Females	Age	Males	Females
< 1	785	741	12	2180	1974
1	1307	1107	13	2297	2029
2	1456	1255	14	2397	2087
3	1604	1397	15	2449	2143
4	1729	1546	16	2528	2143
5	1812	1698	17	2618	2150
6	1910	1785	18, < 30	2987	2183
7	1992	1771	30, < 59	2928	2186
8	2056	1835	60	2018	1834
9	2066	1810			
10	2088	1901	Pregnant		+ 285
11	2152	1914	Lactating		+ 500

¹ These recommendations are based on reference weight data for Mozambique (James and Schofield, 1994) and include energy needed to maintain weight as well as energy necessary for occupational and “socially desirable” activities. For adults, examples of the latter include “attending community meetings or walking to health clinics or places of worship.” For children, additional energy is needed for “the normal process of development, for activities such as exploration of the surroundings, learning, and behavioral adjustments to other children and adults.” (FAO/WHO/UNU, 1985). Occupational activities are assumed to be characteristic of a rural population in a developing country, i.e. requiring moderate to heavy energy expenditures

Note that household size in adult equivalent units can be calculated with information from this table. We started with the age-sex grouping of individuals with the highest daily energy recommendation — adult males from 18 to 30 years of age. Individuals in this group were the standard, that is, equivalent to 1.0 adults. For each other age-sex grouping we calculated the adult equivalence by dividing their energy recommendation by that of 18-30 year old men. For example, a 16 year-old male would be 0.85 of an adult equivalent (2528/2987), a 3 year-old female would be 0.47 of an adult equivalent (1397/2987), etc. By adding up these adult equivalent values for each household, one gets a value for household size that gives a better indication of the household’s total energy needs, than just using a count of the number of individuals.

Source: Rose, Donald and David Tschirley. 2000. A Simplified Method for Assessing Dietary Adequacy in Mozambique. Directorate of Economics, Research Report No. 36, Maputo: Ministry of Agriculture and Fisheries.

ANNEX E.

**DENSITIES TO CONVERT
VOLUMETRIC MEASURES
INTO GRAMS FOR CONSUMPTION
SURVEY**

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
MAIZE FLOUR	MILLILITERS	RAW	0.791	RAW	1.000	2.190	
MAIZE FLOUR	MILLILITERS	COOKED	1.079	RAW	0.460		0.460
MAIZE FLOUR	GRAMS	RAW	1.000	RAW	1.000		
MAIZE FLOUR	STANDARDIZED TABLESPOON	RAW	11.696	RAW	1.000	2.190	
WHEAT FLOUR	MILLILITERS	RAW	0.635	RAW	1.000	0.934	
WHEAT FLOUR	GRAMS	RAW	1.000	RAW	1.000		
RICE FLOUR	MILLILITERS	RAW	0.710	RAW	1.000	5.350	
RICE FLOUR	MILLILITERS	COOKED	1.033	RAW	0.190		0.190
RICE FLOUR	STANDARDIZED TABLESPOON	RAW	10.499	RAW	1.000	5.350	
SORGHUM FLOUR	MILLILITERS	RAW	0.741	RAW	1.000	2.190	
SORGHUM FLOUR	MILLILITERS	COOKED	1.079	RAW	0.460		0.460
DRY MAIZE - GRAIN	MILLILITERS	RAW	0.725	RAW	0.662	2.190	
DRY MAIZE - GRAIN	GRAMS	RAW	1.000	RAW	0.662	2.190	
ROASTED RICE (MATAGO)	MILLILITERS	COOKED	0.471	RAW	1.000		
DRY RICE	MILLILITERS	RAW	0.854	RAW	1.000	2.633	
DRY RICE	MILLILITERS	COOKED	0.779	COOKED	1.000		0.388
DRY RICE	GRAMS	RAW	1.000	RAW	1.000	2.633	
DRY RICE	STANDARDIZED CUP #1	RAW	256.200	RAW	1.000	2.633	
DRY RICE	STANDARDIZED CUP #1	COOKED	233.670	COOKED	1.000		0.388
DRY RICE	STANDARDIZED TEASPOON	RAW	4.270	RAW	1.000	2.633	
DRY RICE	STANDARDIZED TEASPOON	COOKED	3.895	COOKED	1.000		0.388
DRY SORGHUM	MILLILITERS	RAW	0.719	RAW	1.000	1.000	
MILLET	MILLILITERS	RAW	0.847	RAW	1.000	1.000	
MILLET	MILLILITERS	COOKED	0.735	COOKED	1.000		1.000
MAIZE ON THE COB	MILLILITERS	RAW	0.703	COOKED	0.544	0.486	
MAIZE ON THE COB	MILLILITERS	COOKED	0.703	COOKED	0.544		2.081
MAIZE ON THE COB	SMALL STANDARDIZED UNIT	RAW	108.800	COOKED	0.415	0.415	
MAIZE ON THE COB	SMALL STANDARDIZED UNIT	COOKED	45.200	COOKED	1.000		2.407

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
MAIZE ON THE COB	MEDIUM STANDARDIZED UNIT	RAW	146.967	COOKED	0.523	0.523	
MAIZE ON THE COB	MEDIUM STANDARDIZED UNIT	COOKED	76.900	COOKED	1.000		1.911
MAIZE ON THE COB	LARGE STANDARDIZED UNIT	RAW	251.550	COOKED	0.523	0.519	
MAIZE ON THE COB	LARGE STANDARDIZED UNIT	COOKED	130.675	COOKED	1.000		1.925
MAIZE BRAN	MILLILITERS	RAW	0.403	RAW	1.000	1.000	
MAIZE BRAN	MILLILITERS	COOKED	0.403	RAW	1.000	1.000	
BREAD	MILLILITERS	COOKED	0.236	COOKED	1.000		1.071
BREAD	GRAMS	COOKED	1.000	COOKED	1.000		1.071
BREAD	SMALL STANDARDIZED UNIT	COOKED	35.000	COOKED	1.000		1.071
BREAD	MEDIUM STANDARDIZED UNIT	COOKED	110.000	COOKED	1.000		1.071
BREAD	LARGE STANDARDIZED UNIT	COOKED	250.000	COOKED	1.000		1.071
PASTA	MILLILITERS	RAW	0.400	RAW	1.000	2.450	
PASTA	MILLILITERS	COOKED	0.592	COOKED	1.000		0.408
OTHER CEREALS	MILLILITERS	RAW	0.847	RAW	1.000	1.000	
OTHER CEREALS	MILLILITERS	COOKED	0.735	COOKED	1.000		1.000
DRY CASSAVA	MILLILITERS	RAW	0.548	RAW	0.950	1.275	
DRY CASSAVA	MILLILITERS	COOKED	0.528	RAW	0.746		0.785
DRY CASSAVA	SMALL STANDARDIZED UNIT	RAW	52.360	RAW	0.950	1.275	
DRY CASSAVA	SMALL STANDARDIZED UNIT	COOKED	102.030	RAW	0.746		0.785
DRY CASSAVA	MEDIUM STANDARDIZED UNIT	RAW	129.000	RAW	0.950	1.275	
DRY CASSAVA	MEDIUM STANDARDIZED UNIT	COOKED	251.420	RAW	0.746		0.785
DRY CASSAVA	LARGE STANDARDIZED UNIT	RAW	243.800	RAW	0.950	1.275	
DRY CASSAVA	LARGE STANDARDIZED UNIT	COOKED	475.170	RAW	0.746		0.785

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
CASSAVA FLOUR	MILLILITERS	RAW	0.448	RAW	1.000	2.280	
CASSAVA FLOUR	MILLILITERS	COOKED	1.035	RAW	0.440		0.440
CASSAVA FLOUR	GRAMS	RAW	1.000	RAW	1.000		
CASSAVA FLOUR	KILOGRAMS	RAW	1,000.000	RAW	1.000	2.280	
CASSAVA FLOUR	STANDARDIZED TABLESPOON	RAW	6.723	RAW	1.000	2.280	
CASSAVA FLOUR	STANDARDIZED TABLESPOON	COOKED	15.521	RAW	0.440		0.440
FRESH CASSAVA	MILLILITERS	RAW	0.548	RAW	1.000	0.983	
FRESH CASSAVA	MILLILITERS	COOKED	0.434	RAW	1.000		0.787
FRESH CASSAVA	SMALL STANDARDIZED UNIT	RAW	236.500	RAW	0.685	0.792	
FRESH CASSAVA	SMALL STANDARDIZED UNIT	COOKED	187.200	RAW	0.865		0.865
FRESH CASSAVA	MEDIUM STANDARDIZED UNIT	RAW	372.600	RAW	0.744	0.929	
FRESH CASSAVA	MEDIUM STANDARDIZED UNIT	COOKED	346.300	RAW	0.800		0.800
FRESH CASSAVA	LARGE STANDARDIZED UNIT	RAW	852.200	RAW	0.774	0.983	
FRESH CASSAVA	LARGE STANDARDIZED UNIT	COOKED	838.000	RAW	0.787		0.787
SWEET POTATO FLOUR	MILLILITERS	RAW	0.470	COOKED	1.000	1.000	
WHITE-FLESH SWEET POTATO	MILLILITERS	RAW	0.497	RAW	0.745	0.801	
WHITE-FLESH SWEET POTATO	MILLILITERS	COOKED	1.074	COOKED	1.000		0.930
WHITE-FLESH SWEET POTATO	KILOGRAMS	RAW	1,000.000	RAW	0.745	0.801	
WHITE-FLESH SWEET POTATO	KILOGRAMS	COOKED	1,000.000	COOKED	1.000		0.930
WHITE-FLESH SWEET POTATO	STANDARDIZED TEASPOON	RAW	2.483	RAW	0.745		0.930
WHITE-FLESH SWEET POTATO	STANDARDIZED TEASPOON	COOKED	5.370	COOKED	1.000		0.930

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
WHITE-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	RAW	100.000	RAW	0.745	0.801	
WHITE-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	COOKED	75.000	COOKED	1.000		0.930
WHITE-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	RAW	200.000	RAW	0.745	0.801	
WHITE-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	COOKED	150.000	COOKED	1.000		0.930
WHITE-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	RAW	450.000	RAW	0.745	0.801	
WHITE-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	COOKED	420.000	COOKED	1.000		0.930
YELLOW-FLESH SWEET POTATO	MILLILITERS	RAW	0.523	RAW	0.783	0.786	
YELLOW-FLESH SWEET POTATO	MILLILITERS	COOKED	1.066	COOKED	1.000		0.997
YELLOW-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	RAW	100.000	RAW	0.783	0.786	
YELLOW-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	COOKED	75.000	COOKED	1.000		0.997
YELLOW-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	RAW	200.000	RAW	0.783	0.786	
YELLOW-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	COOKED	150.000	COOKED	1.000		0.997
YELLOW-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	RAW	450.000	RAW	0.783	0.786	
YELLOW-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	COOKED	420.000	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	MILLILITERS	RAW	0.523	RAW	0.783	0.786	
ORANGE-FLESH SWEET POTATO	MILLILITERS	COOKED	1.066	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	STANDARDIZED TABLESPOON	RAW	7.734	RAW	0.783	0.786	
ORANGE-FLESH SWEET POTATO	STANDARDIZED TABLESPOON	COOKED	15.763	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	STANDARDIZED	RAW	2.578	RAW	0.783	0.786	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
SWEET POTATO	TEASPOON						
ORANGE-FLESH SWEET POTATO	STANDARDIZED TEASPOON	COOKED	5.254	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	RAW	100.000	RAW	0.783	0.786	
ORANGE-FLESH SWEET POTATO	SMALL STANDARDIZED UNIT	COOKED	75.000	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	RAW	200.000	RAW	0.783	0.786	
ORANGE-FLESH SWEET POTATO	MEDIUM STANDARDIZED UNIT	COOKED	150.000	COOKED	1.000		0.997
ORANGE-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	RAW	450.000	RAW	0.783	0.786	
ORANGE-FLESH SWEET POTATO	LARGE STANDARDIZED UNIT	COOKED	420.000	COOKED	1.000		0.997
IRISH POTATO	MILLILITERS	RAW	0.617	RAW	1.000	0.927	
IRISH POTATO	MILLILITERS	COOKED	0.659	COOKED	0.910		1.079
IRISH POTATO	GRAMS	RAW	1.000	RAW	1.000		
IRISH POTATO	SMALL STANDARDIZED UNIT	RAW	50.250	RAW	1.000	0.916	
IRISH POTATO	SMALL STANDARDIZED UNIT	COOKED	50.517	COOKED	0.911		1.092
IRISH POTATO	MEDIUM STANDARDIZED UNIT	RAW	109.500	RAW	1.000	0.949	
IRISH POTATO	MEDIUM STANDARDIZED UNIT	COOKED	110.700	COOKED	0.939		1.054
IRISH POTATO	LARGE STANDARDIZED UNIT	RAW	268.590	RAW	1.000	0.917	
IRISH POTATO	LARGE STANDARDIZED UNIT	COOKED	271.533	COOKED	0.955		1.090
TARO (INHAME)	MILLILITERS	RAW	0.543	RAW	0.877	0.878	
TARO (INHAME)	MILLILITERS	COOKED	0.670	COOKED	1.000		1.140
TARO (INHAME)	SMALL STANDARDIZED UNIT	RAW	165.800	RAW	0.823	0.806	
TARO (INHAME)	SMALL STANDARDIZED UNIT	COOKED	132.900	COOKED	1.000		1.240

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
TARO (INHAME)	MEDIUM STANDARDIZED UNIT	RAW	223.700	RAW	0.772	0.949	
TARO (INHAME)	MEDIUM STANDARDIZED UNIT	COOKED	212.200	COOKED	1.000		1.054
TARO (INHAME)	LARGE STANDARDIZED UNIT	RAW	680.780	RAW	0.850	0.878	
TARO (INHAME)	LARGE STANDARDIZED UNIT	COOKED	597.725	COOKED	1.000		1.140
OTHER TUBERS	MILLILITERS	RAW	0.633	RAW	0.860	0.878	
OTHER TUBERS	MILLILITERS	COOKED	0.574	COOKED	1.000		1.140
OTHER TUBERS	KILOGRAMS	RAW	1,000.000	RAW	0.860	0.878	
OTHER TUBERS	SMALL STANDARDIZED UNIT	RAW	165.800	RAW	0.823	0.806	
OTHER TUBERS	SMALL STANDARDIZED UNIT	COOKED	132.900	COOKED	1.000		1.240
OTHER TUBERS	MEDIUM STANDARDIZED UNIT	RAW	223.700	RAW	0.772	0.949	
OTHER TUBERS	MEDIUM STANDARDIZED UNIT	COOKED	212.200	COOKED	1.000		1.054
OTHER TUBERS	LARGE STANDARDIZED UNIT	RAW	680.780	RAW	0.850	0.878	
OTHER TUBERS	LARGE STANDARDIZED UNIT	COOKED	597.725	COOKED	1.000		1.140
DRY COWPEA	MILLILITERS	RAW	0.834	RAW	1.000	2.000	
DRY COWPEA	MILLILITERS	COOKED	0.695	COOKED	1.000		0.500
DRY SUGAR BEAN	MILLILITERS	RAW	0.839	RAW	1.000	2.354	
DRY SUGAR BEAN	MILLILITERS	COOKED	0.912	COOKED	1.000		0.425
DRY SUGAR BEAN	GRAMS	RAW	1.000	RAW	1.000		
DRY PIGEON PEA	MILLILITERS	RAW	0.929	RAW	1.000	2.652	
DRY PIGEON PEA	MILLILITERS	COOKED	0.660	COOKED	1.000		0.377
DRY MUNG BEAN	MILLILITERS	RAW	0.857	RAW	1.000	2.354	
DRY MUNG BEAN	MILLILITERS	COOKED	0.759	COOKED	1.000		0.425
OTHER DRY BEAN	MILLILITERS	RAW	0.857	RAW	1.000	2.354	
OTHER DRY BEAN	MILLILITERS	COOKED	0.759	COOKED	1.000		0.425
FRESH COWPEA	MILLILITERS	RAW	0.283	RAW	0.910	3.160	
FRESH COWPEA	MILLILITERS	COOKED	0.697	COOKED	1.000		0.320

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
FRESH COWPEA	STANDARDIZED CUP #1	RAW	84.900	RAW	1.000	3.160	
FRESH COWPEA	STANDARDIZED CUP #1	COOKED	209.100	COOKED	1.000		0.320
FRESH COWPEA	STANDARDIZED CUP #2	RAW	155.650	RAW	1.000	3.160	
FRESH COWPEA	STANDARDIZED CUP #2	COOKED	383.350	COOKED	1.000		0.320
FRESH COWPEA	STANDARDIZED TEASPOON	RAW	1.395	RAW	1.000	3.160	
FRESH COWPEA	STANDARDIZED TEASPOON	COOKED		COOKED	1.000		0.320
FRESH SUGAR BEAN	MILLILITERS	RAW	0.630	RAW	1.000	1.077	
FRESH SUGAR BEAN	MILLILITERS	COOKED	0.710	COOKED	1.000		0.929
FRESH PIGEON PEA	MILLILITERS	RAW	0.631	RAW	1.000	1.077	
FRESH PIGEON PEA	MILLILITERS	COOKED	0.705	COOKED	1.000		0.929
FRESH PIGEON PEA	STANDARDIZED CUP #1	RAW	189.300	RAW	1.000	1.077	
FRESH PIGEON PEA	STANDARDIZED CUP #1	COOKED	211.500	COOKED	1.000		0.929
FRESH PIGEON PEA	STANDARDIZED CUP #2	RAW	347.050	RAW	1.000	1.077	
FRESH PIGEON PEA	STANDARDIZED CUP #2	COOKED	387.750	COOKED	1.000		0.929
FRESH PIGEON PEA	STANDARDIZED TEASPOON	RAW	3.110	RAW	1.000	1.077	
FRESH PIGEON PEA	STANDARDIZED TEASPOON	COOKED	3.475	COOKED	1.000		0.929
FRESH BAMBARA NUT	MILLILITERS	RAW	0.655	RAW	0.592	0.549	
FRESH BAMBARA NUT	MILLILITERS	COOKED	0.796	COOKED	1.000		1.822
OTHER FRESH BEAN	MILLILITERS	RAW	0.566	RAW	1.000	0.962	
OTHER FRESH BEAN	MILLILITERS	COOKED	0.560	COOKED	1.000		1.040
OTHER FRESH BEAN	STANDARDIZED CUP #1	RAW	169.800	RAW	1.000	0.962	
OTHER FRESH BEAN	STANDARDIZED CUP #1	COOKED	168.000	COOKED	1.000		1.040
OTHER FRESH BEAN	STANDARDIZED CUP #2	RAW	311.300	RAW	1.000	0.962	
OTHER FRESH BEAN	STANDARDIZED CUP #2	COOKED	308.000	COOKED	1.000		1.040
OTHER FRESH BEAN	STANDARDIZED TABLESPOON	RAW	8.369	RAW	1.000	0.962	
OTHER FRESH BEAN	STANDARDIZED TABLESPOON	COOKED	8.281	COOKED	1.000		1.040

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
DRY PEAS	MILLILITERS	RAW	0.823	RAW	1.000	2.047	
DRY PEAS	MILLILITERS	COOKED	0.722	COOKED	1.000		0.489
FRESH PEA	MILLILITERS	RAW	0.650	RAW	1.000	2.047	
FRESH PEA	MILLILITERS	COOKED	0.710	COOKED	1.000		0.489
FRESH FAVA BEAN	MILLILITERS	RAW	0.480	RAW	1.000	2.047	
FRESH FAVA BEAN	MILLILITERS	COOKED	0.520	COOKED	1.000		0.489
OTHER FRESH LEGUMINOUS PLANT	MILLILITERS	RAW	0.631	RAW	1.000	1.077	
OTHER FRESH LEGUMINOUS PLANT	MILLILITERS	COOKED	0.705	COOKED	1.000		0.929
DRY PEANUT	MILLILITERS	RAW	0.485	RAW	1.000	1.000	
DRY PEANUT	MILLILITERS	COOKED	0.760	COOKED	1.000		1.000
FRESH PEANUT	MILLILITERS	RAW	0.379	RAW	0.810	1.000	
FRESH PEANUT	MILLILITERS	COOKED	0.594	COOKED	1.567		1.000
FRESH PEANUT	STANDARDIZED CUP #1	RAW	113.700	RAW	0.810	1.000	
FRESH PEANUT	STANDARDIZED CUP #1	COOKED	178.200	COOKED	1.567		1.000
FRESH PEANUT	STANDARDIZED CUP #2	RAW	208.450	RAW	0.810	1.000	
FRESH PEANUT	STANDARDIZED CUP #2	COOKED	326.700	COOKED	1.567		1.000
FRESH PEANUT	STANDARDIZED TEASPOON	RAW	1.868	RAW	0.810	1.000	
FRESH PEANUT	STANDARDIZED TEASPOON	COOKED	2.928	COOKED	1.567		1.000
SESAME	MILLILITERS	RAW	0.608	RAW	1.000	1.000	
SESAME	MILLILITERS	COOKED	0.568	COOKED	1.000		1.000
SUNFLOWER	MILLILITERS	RAW	0.194	RAW	0.540		1.000
CASHEW NUT	MILLILITERS	RAW	0.547	RAW	1.000	1.000	
CASHEW NUT	MILLILITERS	COOKED	0.579	COOKED	1.000		1.000
PUMPKIN SEED	MILLILITERS	RAW	0.713	RAW	0.750	1.000	
PUMPKIN SEED	MILLILITERS	COOKED	0.959	COOKED	1.000		1.000
CUCUMBER SEED	MILLILITERS	RAW	1.840	RAW	1.000	1.000	
CUCUMBER SEED	MILLILITERS	COOKED	1.840	COOKED	1.000		1.000
MELON SEED	MILLILITERS	RAW	0.479	RAW	0.360	1.000	
MELON SEED	MILLILITERS	COOKED	0.479	RAW	0.360		1.000

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
OTHER NUTS OR SEEDS	MILLILITERS	RAW	0.568	COOKED	1.000	1.000	
OTHER NUTS OR SEEDS	MILLILITERS	COOKED	0.568	COOKED	1.000		1.000
DRY FISH	MILLILITERS	RAW	0.230	RAW	1.000	3.788	
DRY FISH	MILLILITERS	COOKED	0.769	COOKED	1.000		0.264
DRY FISH	GRAMS	RAW	1.000	RAW	1.000	3.788	
DRY FISH	STANDARDIZED TABLESPOON	COOKED	11.540	COOKED	1.000		0.463
DRY FISH	STANDARDIZED TEASPOON	RAW	1.150	RAW	1.000	2.160	
DRY FISH	STANDARDIZED TEASPOON	COOKED	3.844	COOKED	1.000		0.463
DRY FISH	SMALL STANDARDIZED UNIT	RAW	16.520	RAW	0.678	1.151	
DRY FISH	SMALL STANDARDIZED UNIT	COOKED	19.020	COOKED	0.678		0.869
DRY FISH	MEDIUM STANDARDIZED UNIT	RAW	32.780	RAW	0.698	1.159	
DRY FISH	MEDIUM STANDARDIZED UNIT	COOKED	38.000	COOKED	0.698		0.863
DRY FISH	LARGE STANDARDIZED UNIT	RAW	483.520	RAW	0.493	1.459	
DRY FISH	LARGE STANDARDIZED UNIT	COOKED	798.700	COOKED	0.493		0.685
FRESH FISH	MILLILITERS	RAW	1.016	RAW	0.837	0.837	
FRESH FISH	MILLILITERS	COOKED	0.810	COOKED	1.000		1.195
FRESH FISH	STANDARDIZED TABLESPOON	RAW	15.245	COOKED	0.837		1.195
FRESH FISH	STANDARDIZED TABLESPOON	COOKED	12.152	COOKED	1.000		1.195
FRESH FISH	STANDARDIZED TEASPOON	RAW	5.082	COOKED	0.837		1.195
FRESH FISH	STANDARDIZED TEASPOON	COOKED	4.051	COOKED	1.000		1.195
FRESH FISH	SMALL STANDARDIZED	RAW	31.000	COOKED	0.565	0.565	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	UNIT						
FRESH FISH	SMALL STANDARDIZED UNIT	COOKED	17.500	COOKED	1.000		1.771
FRESH FISH	MEDIUM STANDARDIZED UNIT	RAW	122.000	COOKED	0.622	0.622	
FRESH FISH	MEDIUM STANDARDIZED UNIT	COOKED	75.900	COOKED	1.000		1.607
FRESH FISH	LARGE STANDARDIZED UNIT	RAW	1,000.000	COOKED	0.493	0.493	
FRESH FISH	LARGE STANDARDIZED UNIT	COOKED	493.466	COOKED	1.000		2.026
CANNED FISH	MILLILITERS	COOKED	0.811	COOKED	1.000		1.000
CANNED FISH	MEDIUM STANDARDIZED UNIT	COOKED	121.700	COOKED	1.000		1.000
FRESH PRAWN	MILLILITERS	RAW	0.690	RAW	0.393	0.237	
FRESH PRAWN	MILLILITERS	COOKED	0.716	COOKED	1.000		1.659
FRESH PRAWN	STANDARDIZED TEASPOON	RAW	3.450	RAW	0.393	0.237	
FRESH PRAWN	STANDARDIZED TEASPOON	COOKED	3.582	COOKED	1.000		1.659
FRESH PRAWN	MEDIUM STANDARDIZED UNIT	RAW	37.326	RAW	0.393	0.237	
FRESH PRAWN	MEDIUM STANDARDIZED UNIT	COOKED	8.849	COOKED	1.000		1.659
DRY PRAWN	MILLILITERS	RAW	0.234	RAW	1.000	2.017	
DRY PRAWN	MILLILITERS	COOKED	0.738	RAW	0.496		0.496
DRY PRAWN	GRAMS	RAW	1.000	RAW			
CRAB	MILLILITERS	RAW	0.480	RAW	0.211	0.211	
CRAB	MILLILITERS	COOKED	0.698	COOKED	1.000		4.857
CRAB	SMALL STANDARDIZED UNIT	RAW	140.966	RAW	0.211	0.211	
CRAB	SMALL STANDARDIZED UNIT	COOKED	21.704	COOKED	1.000		4.857
CRAB	MEDIUM STANDARDIZED UNIT	RAW	284.000	RAW	0.211	0.211	
CRAB	MEDIUM	COOKED	50.800	COOKED	1.000		4.746

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	STANDARDIZED UNIT						
CRAB	LARGE STANDARDIZED UNIT	RAW	572.167	RAW	0.208	0.208	
CRAB	LARGE STANDARDIZED UNIT	COOKED	118.900	COOKED	1.000		4.812
FRESH SQUID	MILLILITERS	RAW	1.189	RAW	0.818	0.353	
FRESH SQUID	MILLILITERS	COOKED	0.996	RAW	1.000		2.834
FRESH SQUID	MEDIUM STANDARDIZED UNIT	RAW	112.925	RAW	0.818	0.353	
FRESH SQUID	MEDIUM STANDARDIZED UNIT	COOKED	39.850	RAW	1.000		2.834
OTHER SEAFOOD	MILLILITERS	RAW	0.959	RAW	0.357	0.097	
OTHER SEAFOOD	MILLILITERS	COOKED	0.918	COOKED	1.000		10.347
OTHER SEAFOOD	MEDIUM STANDARDIZED UNIT	RAW	300.000	COOKED	1.000	0.097	
CHICKEN	MILLILITERS	RAW	0.997	RAW	0.661	0.487	
CHICKEN	MILLILITERS	COOKED	0.651	COOKED	1.000		2.057
CHICKEN	SMALL STANDARDIZED UNIT	RAW	719.950	RAW	0.596	0.465	
CHICKEN	SMALL STANDARDIZED UNIT	COOKED	335.800	COOKED	1.000		2.185
CHICKEN	MEDIUM STANDARDIZED UNIT	RAW	1,014.200	RAW	0.725	0.508	
CHICKEN	MEDIUM STANDARDIZED UNIT	COOKED	525.700	COOKED	1.000		1.929
CHICKEN	LARGE STANDARDIZED UNIT	RAW	1,600.000	RAW	0.725	0.508	
CHICKEN	LARGE STANDARDIZED UNIT	COOKED	829.300	COOKED	1.000		1.929
LITTLE BIRD	MILLILITERS	RAW	0.997	RAW	0.661	0.487	
LITTLE BIRD	MILLILITERS	COOKED	0.651	COOKED	1.000		2.057
LITTLE BIRD	SMALL STANDARDIZED UNIT	RAW	75.000	RAW	1.000	0.487	
LITTLE BIRD	SMALL STANDARDIZED UNIT	COOKED	38.860	COOKED	1.000		2.057
LITTLE BIRD	MEDIUM	RAW	100.000	RAW	1.000	0.487	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	STANDARDIZED UNIT						
DUCK	MILLILITERS	RAW	0.881	RAW	0.378	0.770	
DUCK	MILLILITERS	COOKED	0.658	COOKED	0.490		1.298
DUCK	MEDIUM STANDARDIZED UNIT	RAW	1,399.700	RAW	0.300	0.611	
DUCK	MEDIUM STANDARDIZED UNIT	COOKED	855.000	COOKED	0.490		1.637
OTHER FOWL	MILLILITERS	RAW	0.997	RAW	0.661	0.487	
OTHER FOWL	MILLILITERS	COOKED	0.651	COOKED	1.000		2.057
OTHER FOWL	MEDIUM STANDARDIZED UNIT	RAW	1,014.200	RAW	0.661	0.487	
OTHER FOWL	MEDIUM STANDARDIZED UNIT	COOKED	525.700	COOKED	1.000		2.057
BEEF	MILLILITERS	RAW	0.443	RAW	1.000	1.431	
BEEF	MILLILITERS	COOKED	0.887	COOKED	1.000		0.699
BEEF	GRAMS	RAW	1.000	RAW	1.000		
BEEF	GRAMS	COOKED	1.000	COOKED	1.000		
BEEF	KILOGRAMS	RAW	1,000.000	RAW	1.000	1.431	
BEEF	KILOGRAMS	COOKED	1,000.000	COOKED	1.000		0.699
PORK	MILLILITERS	RAW	1.178	RAW	1.000	0.618	
PORK	MILLILITERS	COOKED	0.767	COOKED	1.000		1.619
PORK	GRAMS	RAW	1.000	RAW	1.000	0.618	
PORK	KILOGRAMS	RAW	1,000.000	RAW	1.000	0.618	
GOAT MEAT	MILLILITERS	RAW	1.212	RAW	0.723	0.465	
GOAT MEAT	MILLILITERS	COOKED	0.758	COOKED	0.723		2.152
GOAT MEAT	GRAMS	RAW	1.000	RAW	0.723	0.465	
GOAT MEAT	KILOGRAMS	RAW	1,000.000	RAW	0.723	0.465	
GAME MEAT	MILLILITERS	RAW	1.212	RAW	0.723	0.465	
GAME MEAT	MILLILITERS	COOKED	0.758	COOKED	0.723		2.152
GAME MEAT	GRAMS	RAW	1.000	RAW	0.723		
GAME MEAT	LARGE STANDARDIZED UNIT	RAW	4,500.000	RAW	1.000	0.465	
LIVER	MILLILITERS	RAW	1.170	RAW	1.000	0.751	
LIVER	MILLILITERS	COOKED	0.648	COOKED	1.000		1.331
LIVER	GRAMS	RAW	1.000	RAW	1.000	0.751	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
LIVER	LARGE STANDARDIZED UNIT	RAW	819.100	RAW	1.000	0.751	
LIVER	LARGE STANDARDIZED UNIT	COOKED	615.500	COOKED	1.000		1.331
OTHER MEATS	MILLILITERS	RAW	1.212	RAW	0.723	0.465	
OTHER MEATS	MILLILITERS	COOKED	0.758	COOKED	0.723		2.152
RAT	MILLILITERS	RAW	0.997	RAW	0.661	0.487	
RAT	MILLILITERS	COOKED	0.651	COOKED	1.000		2.057
RAT	SMALL STANDARDIZED UNIT	RAW	56.180	RAW	0.661	0.487	
RAT	SMALL STANDARDIZED UNIT	COOKED	56.180	COOKED	0.661		2.057
RAT	MEDIUM STANDARDIZED UNIT	RAW	69.200	RAW	0.661	0.487	
RAT	MEDIUM STANDARDIZED UNIT	COOKED	69.200	COOKED	0.661		2.057
RAT	LARGE STANDARDIZED UNIT	RAW	82.220	RAW	0.661	0.487	
FIELD RAT	MILLILITERS	RAW	0.997	RAW	0.669	0.686	
FIELD RAT	MILLILITERS	COOKED	0.711	COOKED	1.000		1.458
FIELD RAT	GRAMS	RAW	1.000	RAW	0.669	0.686	
FIELD RAT	GRAMS	COOKED	1.000	COOKED	0.669		1.458
FIELD RAT	SMALL STANDARDIZED UNIT	RAW	1,869.000	RAW	0.669	0.686	
FIELD RAT	SMALL STANDARDIZED UNIT	COOKED	1,269.000	COOKED	0.669		1.458
FIELD RAT	MEDIUM STANDARDIZED UNIT	RAW	2,900.000	COOKED	0.397	0.378	
FIELD RAT	MEDIUM STANDARDIZED UNIT	COOKED	1,469.000	COOKED	0.784		2.647
FIELD RAT	LARGE STANDARDIZED UNIT	RAW	4,500.000	COOKED	0.253	0.378	
FIELD RAT	LARGE STANDARDIZED UNIT	COOKED	1,700.000	COOKED	0.669		2.647
MONKEY	MILLILITERS	RAW	0.868	RAW	0.667	0.634	
MONKEY	MILLILITERS	COOKED	0.894	COOKED	1.000		1.577

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
MONKEY	SMALL STANDARDIZED UNIT	RAW	1,709.100	RAW	0.305	0.634	
MONKEY	SMALL STANDARDIZED UNIT	COOKED	591.000	COOKED	0.559		1.577
MONKEY	MEDIUM STANDARDIZED UNIT	RAW	3,418.000	RAW	0.305	0.634	
RABBIT	MILLILITERS	RAW	1.282	RAW	0.780	0.486	
RABBIT	MILLILITERS	COOKED	0.959	COOKED	1.000		2.032
RABBIT	MEDIUM STANDARDIZED UNIT	RAW	947.000	RAW	1.000	0.479	
OTHER BUSH ANIMALS	MILLILITERS	RAW	1.178	RAW	1.000	0.618	
OTHER BUSH ANIMALS	MILLILITERS	COOKED	0.767	COOKED	1.000		1.619
OTHER INSECT	MILLILITERS	RAW	0.800	RAW	1.000	1.000	
EGGS	MILLILITERS	COOKED	0.604	COOKED	1.000		1.119
EGGS	SMALL STANDARDIZED UNIT	RAW	42.700	RAW	0.886	0.871	
EGGS	SMALL STANDARDIZED UNIT	COOKED	37.200	COOKED	1.000		1.148
EGGS	MEDIUM STANDARDIZED UNIT	RAW	55.800	RAW	0.892	0.893	
EGGS	MEDIUM STANDARDIZED UNIT	COOKED	49.850	COOKED	1.000		1.119
EGGS	LARGE STANDARDIZED UNIT	RAW	63.400	RAW	0.898	0.886	
EGGS	LARGE STANDARDIZED UNIT	COOKED	56.200	COOKED	1.000		1.128
POWDERED MILK	MILLILITERS	RAW	0.568	RAW	1.000	0.568	
POWDERED MILK	GRAMS	RAW	1.000	RAW	1.000	0.568	
CONDENSED MILK	MILLILITERS	RAW	1.368	RAW	1.000	1.368	
CONDENSED MILK	GRAMS	RAW	1.000	RAW	1.000	1.368	
YOGHURT	MEDIUM STANDARDIZED UNIT	RAW	226.796	RAW	1.000		
KALE	MILLILITERS	RAW	0.341	RAW	0.992	0.999	
KALE	MILLILITERS	COOKED	0.756	COOKED	1.000		1.001

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
LETTUCE	MILLILITERS	RAW	0.237	RAW	1.000	1.000	
LETTUCE	MEDIUM STANDARDIZED UNIT	RAW	136.700	RAW	0.430	1.000	
CABBAGE	MILLILITERS	RAW	0.398	RAW	0.890	0.595	
CABBAGE	MILLILITERS	COOKED	2.000	COOKED	1.000		1.681
CABBAGE	SMALL STANDARDIZED UNIT	RAW	1,085.000	RAW	0.657	0.595	
CABBAGE	SMALL STANDARDIZED UNIT	COOKED	645.400	COOKED	1.000		1.681
CABBAGE	MEDIUM STANDARDIZED UNIT	RAW	2,616.000	RAW	1.000	0.906	
CABBAGE	MEDIUM STANDARDIZED UNIT	COOKED	2,369.970	COOKED	1.000		1.104
CABBAGE	LARGE STANDARDIZED UNIT	RAW	4,828.170	RAW	1.000	0.906	
CABBAGE	LARGE STANDARDIZED UNIT	COOKED	4,374.089	COOKED	1.000		1.104
PUMPKIN LEAVES	MILLILITERS	RAW	0.180	RAW	0.900	1.293	
PUMPKIN LEAVES	MILLILITERS	COOKED	0.782	COOKED	0.383		0.778
CASSAVA LEAVES	MILLILITERS	RAW	0.240	RAW	1.000	1.701	
CASSAVA LEAVES	MILLILITERS	COOKED	0.962	RAW	0.591		0.591
CASSAVA LEAVES	STANDARDIZED CUP #1	RAW	71.954	RAW	1.000	1.701	
CASSAVA LEAVES	STANDARDIZED CUP #1	COOKED	288.665	RAW	0.591		0.591
BEAN LEAVES	MILLILITERS	RAW	0.176	RAW	0.865	1.269	
BEAN LEAVES	MILLILITERS	COOKED	0.892	COOKED	0.251		0.788
SWEET POTATO LEAVES	MILLILITERS	RAW	0.194	RAW	1.000	1.883	
SWEET POTATO LEAVES	MILLILITERS	COOKED	1.000	COOKED	1.000		0.531
AMARANTHUS LEAVES	MILLILITERS	RAW	0.155	RAW	1.000	1.785	
AMARANTHUS LEAVES	MILLILITERS	COOKED	0.989	COOKED	0.750		0.560
OTHER LEAVES	MILLILITERS	RAW	0.124	RAW	0.600	1.883	
OTHER LEAVES	MILLILITERS	COOKED	0.644	COOKED	1.000		0.531
PUMPKIN	MILLILITERS	RAW	0.857	COOKED	0.665	0.977	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
PUMPKIN	MILLILITERS	COOKED	1.019	COOKED	1.000		1.023
PUMPKIN	SMALL STANDARDIZED UNIT	RAW	564.350	RAW	1.000	0.977	
PUMPKIN	SMALL STANDARDIZED UNIT	COOKED	482.000	COOKED	1.000		1.023
PUMPKIN	MEDIUM STANDARDIZED UNIT	RAW	1,462.600	RAW	0.665	0.977	
PUMPKIN	MEDIUM STANDARDIZED UNIT	COOKED	950.420	COOKED	1.000		1.023
PUMPKIN	LARGE STANDARDIZED UNIT	RAW	6,488.418	RAW	0.665	1.005	
PUMPKIN	LARGE STANDARDIZED UNIT	COOKED	4,336.800	COOKED	1.000		0.995
CUCUMBER	MILLILITERS	RAW	0.439	RAW	0.970	1.000	
CUCUMBER	SMALL STANDARDIZED UNIT	RAW	175.067	RAW	0.970	1.000	
CUCUMBER	SMALL STANDARDIZED UNIT	COOKED	117.009	COOKED	1.000		0.995
CUCUMBER	MEDIUM STANDARDIZED UNIT	RAW	308.100	RAW	0.970	1.000	
CUCUMBER	LARGE STANDARDIZED UNIT	RAW	396.400	RAW	0.970	1.000	
CHILLIES	MILLILITERS	RAW	0.253	RAW	0.894	1.000	
CHILLIES	MILLILITERS	COOKED	0.253	RAW	0.894		1.000
CHILLIES	STANDARDIZED TABLESPOON	RAW	0.900	RAW	1.000	1.000	
CHILLIES	STANDARDIZED TEASPOON	RAW	0.300	RAW	1.000	1.000	
CHILLIES	STANDARDIZED TEASPOON	COOKED	0.300	RAW	1.000		1.000
CHILLIES	SMALL STANDARDIZED UNIT	RAW	0.107	RAW	0.894	1.000	
CHILLIES	SMALL STANDARDIZED UNIT	COOKED	0.107	RAW	0.894		1.000
CHILLIES	MEDIUM STANDARDIZED UNIT	RAW	22.170	RAW	0.894	1.000	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
CHILLIES	LARGE STANDARDIZED UNIT	RAW	40.000	RAW	0.894	1.000	
CARROT	MILLILITERS	RAW	0.588	RAW	0.910	0.928	
CARROT	MILLILITERS	COOKED	0.578	COOKED	1.000		1.077
CARROT	SMALL STANDARDIZED UNIT	RAW	44.800	RAW	0.850	0.928	
CARROT	MEDIUM STANDARDIZED UNIT	RAW	93.500	RAW	0.859		
TOMATO	MILLILITERS	RAW	0.760	RAW	0.910	0.641	
TOMATO	MILLILITERS	COOKED	0.952	COOKED	1.000		1.630
TOMATO	STANDARDIZED CUP #1	RAW	228.030	RAW	0.910	0.641	
TOMATO	STANDARDIZED CUP #1	COOKED	285.490	COOKED	1.000		1.630
TOMATO	STANDARDIZED TABLESPOON	RAW	11.402	RAW	0.910	0.641	
TOMATO	STANDARDIZED TABLESPOON	COOKED	14.280	COOKED	1.000		1.193
TOMATO	STANDARDIZED TEASPOON	RAW	3.801	RAW	0.910	0.641	
TOMATO	SMALL STANDARDIZED UNIT	RAW	28.244	RAW	0.946	0.838	
TOMATO	SMALL STANDARDIZED UNIT	COOKED	23.678	COOKED	1.000		1.193
TOMATO	MEDIUM STANDARDIZED UNIT	RAW	90.860	RAW	0.951	0.569	
TOMATO	MEDIUM STANDARDIZED UNIT	COOKED	51.720	COOKED	1.000		1.757
TOMATO	LARGE STANDARDIZED UNIT	RAW	166.750	RAW	0.971	0.515	
TOMATO	LARGE STANDARDIZED UNIT	COOKED	85.925	COOKED	1.000		1.941
ONION	MILLILITERS	RAW	0.553	RAW	0.833	0.785	
ONION	MILLILITERS	COOKED	0.802	COOKED	1.000		1.276
ONION	GRAMS	RAW	1.000	RAW	0.833		
ONION	STANDARDIZED TABLESPOON	RAW	8.292	RAW	0.833	0.768	
ONION	STANDARDIZED	COOKED	12.000	COOKED	1.000		1.276

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	TABLESPOON						
ONION	STANDARDIZED TEASPOON	RAW	2.764	RAW	0.833	0.768	
ONION	SMALL STANDARDIZED UNIT	RAW	39.233	RAW	0.833	0.768	
ONION	SMALL STANDARDIZED UNIT	COOKED	30.117	COOKED	1.000		1.303
ONION	MEDIUM STANDARDIZED UNIT	RAW	52.700	RAW	0.833	0.753	
ONION	MEDIUM STANDARDIZED UNIT	COOKED	39.700	COOKED	1.000		1.327
ONION	LARGE STANDARDIZED UNIT	RAW	82.200	RAW	0.833	0.835	
ONION	LARGE STANDARDIZED UNIT	COOKED	68.550	COOKED	1.000		1.197
GARLIC	MILLILITERS	RAW	0.500	RAW	0.935	1.000	
GARLIC	STANDARDIZED TEASPOON	RAW	2.800	RAW	1.000	1.000	
GARLIC	MEDIUM STANDARDIZED UNIT	RAW	10.380	RAW	0.930	1.000	
GARLIC	MEDIUM STANDARDIZED UNIT	COOKED	10.380	RAW	0.930		1.000
GARLIC	LARGE STANDARDIZED UNIT	RAW	18.850	RAW	0.940	1.000	
MUSHROOM	MILLILITERS	RAW	0.311	RAW	0.970	1.000	
MUSHROOM	MILLILITERS	COOKED	0.692	COOKED	1.000	1.000	
OKRA	MILLILITERS	RAW	0.445	RAW	1.000	1.357	
OKRA	MILLILITERS	COOKED	0.774	COOKED	1.000		0.737
OKRA	GRAMS	RAW	1.000	RAW	1.000	1.357	
OKRA	SMALL STANDARDIZED UNIT	RAW	9.000	RAW	1.000	1.357	
OKRA	SMALL STANDARDIZED UNIT	COOKED	1.142	COOKED	1.000		0.737
OKRA	MEDIUM STANDARDIZED UNIT	RAW	14.644	RAW	0.844	1.145	
OKRA	MEDIUM	COOKED	1.858	COOKED	1.000		0.873

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	STANDARDIZED UNIT						
EGG PLANT	MILLILITERS	RAW	0.362	RAW	0.777	0.571	
EGG PLANT	MILLILITERS	COOKED	0.418	COOKED	1.000		1.750
EGG PLANT	SMALL STANDARDIZED UNIT	RAW	84.490	RAW	0.700	0.571	
EGG PLANT	SMALL STANDARDIZED UNIT	COOKED	48.244	COOKED	1.000		1.750
EGG PLANT	MEDIUM STANDARDIZED UNIT	RAW	259.733	RAW	0.867	0.571	
EGG PLANT	MEDIUM STANDARDIZED UNIT	COOKED	148.400	COOKED	1.000		1.750
EGG PLANT	LARGE STANDARDIZED UNIT	RAW	562.320	RAW	0.850	0.571	
EGG PLANT	LARGE STANDARDIZED UNIT	COOKED	321.085	COOKED	1.000		1.750
OTHER VEGETABLE	MILLILITERS	RAW	0.543	RAW	0.877	0.878	
OTHER VEGETABLE	MILLILITERS	COOKED	0.557	COOKED	1.000		1.140
OTHER VEGETABLE	STANDARDIZED TABLESPOON	COOKED	8.355	COOKED	1.000		1.140
BANANA	MILLILITERS	RAW	0.862	RAW	1.000	1.062	
BANANA	MILLILITERS	COOKED	0.878	COOKED	1.000		0.941
BANANA	SMALL STANDARDIZED UNIT	RAW	103.450	RAW	0.657	1.062	
BANANA	SMALL STANDARDIZED UNIT	COOKED	109.900	RAW	0.657		0.941
BANANA	MEDIUM STANDARDIZED UNIT	RAW	162.567	RAW	0.515	0.984	
BANANA	MEDIUM STANDARDIZED UNIT	COOKED	159.967	RAW	0.515		1.016
BANANA	LARGE STANDARDIZED UNIT	RAW	203.333	RAW	0.681	1.011	
BANANA	LARGE STANDARDIZED UNIT	COOKED	205.500	RAW	0.653		0.989
PAPAYA	MILLILITERS	RAW	0.971	RAW	1.000	0.648	
PAPAYA	MILLILITERS	COOKED	1.005	RAW	1.542		1.542
PAPAYA	STANDARDIZED	RAW	14.565	RAW	1.000	0.648	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	TABLESPOON						
PAPAYA	SMALL STANDARDIZED UNIT	RAW	549.200	RAW	0.756	0.648	
PAPAYA	SMALL STANDARDIZED UNIT	COOKED	294.286	RAW	1.542		1.542
PAPAYA	MEDIUM STANDARDIZED UNIT	RAW	3,878.500	RAW	0.730	0.648	
PAPAYA	MEDIUM STANDARDIZED UNIT	COOKED	2,078.278	RAW	1.542		1.542
PAPAYA	LARGE STANDARDIZED UNIT	RAW	5,165.500	RAW	0.780	0.648	
PAPAYA	LARGE STANDARDIZED UNIT	COOKED	3,303.757	RAW	1.542		1.542
MANGO	MILLILITERS	RAW	0.732	RAW	1.000	0.636	
MANGO	MILLILITERS	COOKED	1.015	COOKED	1.000		1.573
MANGO	SMALL STANDARDIZED UNIT	RAW	148.700	RAW	0.552	0.636	
MANGO	SMALL STANDARDIZED UNIT	COOKED	123.700	RAW	1.000		1.573
MANGO	MEDIUM STANDARDIZED UNIT	RAW	214.000	RAW	0.629	0.963	
MANGO	MEDIUM STANDARDIZED UNIT	COOKED	237.667	RAW	0.527		1.038
MANGO	LARGE STANDARDIZED UNIT	RAW	356.567	RAW	0.550	1.003	
MANGO	LARGE STANDARDIZED UNIT	COOKED	357.667	RAW	0.550		0.997
ORANGE	SMALL STANDARDIZED UNIT	RAW	138.470	RAW	0.800	1.000	
ORANGE	MEDIUM STANDARDIZED UNIT	RAW	223.030	RAW	0.770	1.000	
ORANGE	LARGE STANDARDIZED UNIT	RAW	371.970	RAW	0.790	1.000	
TANGERINE	SMALL STANDARDIZED UNIT	RAW	93.380	RAW	0.610	1.000	
TANGERINE	MEDIUM STANDARDIZED UNIT	RAW	111.440	RAW	0.710	1.000	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
TANGERINE	LARGE STANDARDIZED UNIT	RAW	142.960	RAW	0.620	1.000	
LEMON	MILLILITERS	RAW	0.981	RAW	1.000	1.000	
LEMON	MILLILITERS	COOKED	0.981	RAW	1.000	1.000	
LEMON	GRAMS	RAW	1.000	RAW	1.000	1.000	
LEMON	STANDARDIZED TABLESPOON	RAW	14.506	RAW	1.000	1.000	
LEMON	STANDARDIZED TEASPOON	RAW	4.880	RAW	1.000	1.000	
LEMON	SMALL STANDARDIZED UNIT	RAW	80.300	RAW	0.730	1.000	
LEMON	MEDIUM STANDARDIZED UNIT	RAW	172.850	RAW	0.284	1.000	
LEMON	LARGE STANDARDIZED UNIT	RAW	705.000	RAW	0.284	1.000	
LEMON	LARGE STANDARDIZED UNIT	COOKED	705.000	RAW	0.284	1.000	
PINEAPPLE	SMALL STANDARDIZED UNIT	RAW	718.190	RAW	0.620	1.000	
PINEAPPLE	MEDIUM STANDARDIZED UNIT	RAW	1,237.570	RAW	0.570	1.000	
PINEAPPLE	LARGE STANDARDIZED UNIT	RAW	4,290.000	RAW	0.520	1.000	
AVOCADO	MEDIUM STANDARDIZED UNIT	RAW	300.000	RAW	0.660	1.000	
AVOCADO	LARGE STANDARDIZED UNIT	RAW	556.200	RAW	0.660	1.000	
SUGAR APPLE	MILLILITERS	RAW	0.867	RAW	1.000	1.000	
SUGAR APPLE	SMALL STANDARDIZED UNIT	RAW	339.200	RAW	0.278	1.000	
SUGAR APPLE	LARGE STANDARDIZED UNIT	RAW	1,017.600	RAW	0.278	1.000	
GUAVA	MILLILITERS	RAW	0.929	RAW	1.000	1.000	
GUAVA	SMALL STANDARDIZED UNIT	RAW	72.451	RAW	1.000	1.000	
GUAVA	MEDIUM	RAW	90.000	RAW	1.000	1.000	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	STANDARDIZED UNIT						
GUAVA	LARGE STANDARDIZED UNIT	RAW	111.800	RAW	0.707	1.000	
MELON	MILLILITERS	RAW	0.857	COOKED	0.665	0.977	
MELON	MILLILITERS	COOKED	1.019	COOKED	1.000		1.023
MELON	SMALL STANDARDIZED UNIT	RAW	564.350	RAW	1.000	0.977	
MELON	SMALL STANDARDIZED UNIT	COOKED	482.000	COOKED	1.000		1.023
MELON	MEDIUM STANDARDIZED UNIT	RAW	1,462.600	RAW	0.665	0.977	
MELON	MEDIUM STANDARDIZED UNIT	COOKED	950.420	COOKED	1.000		1.023
MELON	LARGE STANDARDIZED UNIT	RAW	6,488.418	RAW	0.665	1.005	
MELON	LARGE STANDARDIZED UNIT	COOKED	4,336.800	COOKED	1.000		0.995
CASHEW FRUIT	MILLILITERS	RAW	0.898	RAW	1.000	0.588	
CASHEW FRUIT	SMALL STANDARDIZED UNIT	RAW	48.000	RAW	1.000	0.588	
CASHEW FRUIT	MEDIUM STANDARDIZED UNIT	RAW	144.000	RAW	1.000	0.588	
CASHEW FRUIT	LARGE STANDARDIZED UNIT	RAW	336.000	RAW	1.000	0.588	
COCONUT/COCONUT MILK	MILLILITERS	RAW	0.949	RAW	1.000	0.970	
COCONUT/COCONUT MILK	MILLILITERS	COOKED	0.949	RAW	1.000		1.030
COCONUT/COCONUT MILK	STANDARDIZED CUP #1	RAW	284.772	RAW	1.000	0.970	
COCONUT/COCONUT MILK	STANDARDIZED CUP #1	COOKED	284.772	RAW	1.000		1.030
COCONUT/COCONUT MILK	STANDARDIZED TEASPOON	RAW	4.746	RAW	1.000	0.970	
COCONUT/COCONUT MILK	STANDARDIZED TEASPOON	COOKED	4.940	RAW	1.000		1.030

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
COCONUT/COCONUT MILK	SMALL STANDARDIZED UNIT	RAW	280.350	RAW	0.576	0.576	
COCONUT/COCONUT MILK	SMALL STANDARDIZED UNIT	COOKED	161.550	RAW	1.000		1.736
COCONUT/COCONUT MILK	MEDIUM STANDARDIZED UNIT	RAW	483.100	RAW	0.650	0.650	
COCONUT/COCONUT MILK	MEDIUM STANDARDIZED UNIT	COOKED	314.100	RAW	1.000		1.538
COCONUT/COCONUT MILK	LARGE STANDARDIZED UNIT	RAW	655.600	RAW	0.552	0.552	
COCONUT/COCONUT MILK	LARGE STANDARDIZED UNIT	COOKED	362.100	RAW	1.000		1.811
YOUNG COCONUT (WATER)	MILLILITERS	RAW	1.000	RAW	1.000	1.000	
YOUNG COCONUT (WATER)	MEDIUM STANDARDIZED UNIT	RAW	2,990.000	RAW	0.260	1.000	
YOUNG COCONUT (WATER)	LARGE STANDARDIZED UNIT	RAW	4,500.000	RAW	0.260	1.000	
OTHER FRUIT	MILLILITERS	RAW	0.843	RAW	0.600	1.000	
RIPE PAPAYA	MILLILITERS	RAW	0.711	RAW	1.000	0.783	
RIPE PAPAYA	MILLILITERS	COOKED	0.837	RAW	1.000		1.278
RIPE PAPAYA	SMALL STANDARDIZED UNIT	RAW	788.100	RAW	0.724	0.536	
RIPE PAPAYA	SMALL STANDARDIZED UNIT	COOKED	422.300	RAW	1.000		1.866
RIPE PAPAYA	MEDIUM STANDARDIZED UNIT	RAW	1,188.000	RAW	0.705	0.646	
RIPE PAPAYA	MEDIUM STANDARDIZED UNIT	COOKED	767.700	RAW	1.000		1.547
SUGAR	MILLILITERS	RAW	0.851	RAW	1.000	1.000	
SUGAR	MILLILITERS	COOKED	0.851	RAW	1.000	1.000	
SUGAR	GRAMS	RAW	1.000	RAW	1.000	1.000	
SUGAR	STANDARDIZED TABLESPOON	RAW	12.769	RAW	1.000	1.000	
SUGAR	STANDARDIZED TABLESPOON	COOKED	12.770	RAW	1.000	1.000	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
SUGAR	STANDARDIZED TEASPOON	RAW	4.256	RAW	1.000	1.000	
SUGAR	STANDARDIZED TEASPOON	COOKED	4.257	RAW	1.000	1.000	
SUGAR CANE	MILLILITERS	RAW	0.695	RAW	0.548	1.000	
SUGAR CANE	SMALL STANDARDIZED UNIT	RAW	210.400	RAW	0.549	1.000	
SUGAR CANE	MEDIUM STANDARDIZED UNIT	RAW	314.600	RAW	0.533	1.000	
SUGAR CANE	LARGE STANDARDIZED UNIT	RAW	476.500	RAW	0.563	1.000	
CANDY	MILLILITERS	COOKED	0.562	COOKED	0.562	1.000	
CANDY	GRAMS	COOKED	1.000	COOKED	0.562	1.000	
CANDY	SMALL STANDARDIZED UNIT	COOKED	2.810	COOKED	0.562	1.000	
CANDY	MEDIUM STANDARDIZED UNIT	COOKED	5.620	COOKED	0.562	1.000	
HONEY	MILLILITERS	RAW	1.504	RAW	1.504	1.000	
HONEY	GRAMS	RAW	1.000	RAW	1.000	1.000	
HONEY	STANDARDIZED TABLESPOON	RAW	22.239	RAW	1.000	1.000	
BISCUIT	MILLILITERS	RAW	0.367	COOKED	1.000	1.000	
BISCUIT	MILLILITERS	COOKED	0.367	COOKED	1.000		1.000
BISCUIT	GRAMS	RAW	1.000	COOKED	1.000		1.000
BISCUIT	GRAMS	COOKED	1.000	COOKED	1.000		1.000
BISCUIT	SMALL STANDARDIZED UNIT	COOKED	5.600	COOKED	1.000		1.000
BISCUIT	MEDIUM STANDARDIZED UNIT	COOKED	9.100	COOKED	1.000		1.000
BISCUIT	LARGE STANDARDIZED UNIT	COOKED	14.760	COOKED	1.000		1.000
CAKE	MILLILITERS	COOKED	0.509	COOKED	1.000		1.000
OIL	MILLILITERS	RAW	0.968	RAW	1.000	1.000	
OIL	MILLILITERS	COOKED	0.968	RAW	1.000		1.000
OIL	GRAMS	RAW	1.000	RAW	1.000	1.000	
OIL	STANDARDIZED	RAW	13.600	RAW	1.000	1.000	

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	TABLESPOON						
OIL	STANDARDIZED TABLESPOON	COOKED	13.600	RAW	1.000		1.000
OIL	STANDARDIZED TEASPOON	RAW	4.838	RAW	1.000	1.000	
OIL	STANDARDIZED TEASPOON	COOKED	4.838	RAW	1.000		1.000
BEER - BOTTLE/CAN	MILLILITERS	RAW	1.000	RAW	1.000	1.000	
WINE - BOTTLED	MILLILITERS	RAW	1.000	RAW	1.000	1.000	
SOFT DRINK - BOTTLED	MILLILITERS	RAW	1.051	RAW	1.000	1.000	
GRAIN ALCOHOL	MILLILITERS	RAW	0.942	RAW	1.000	1.000	
GRAIN ALCOHOL	MILLILITERS	COOKED	0.942	RAW	1.000	1.000	
SUGAR CANE ALCOHOL DRINK	MILLILITERS	RAW	0.942	RAW	1.000	1.000	
SUGAR CANE ALCOHOL DRINK	MILLILITERS	COOKED	0.942	RAW	1.000	1.000	
ALCOHOL MADE FROM MAIZE WASTE	MILLILITERS	RAW	1.007	RAW	1.000	1.000	
ALCOHOL FROM COCONUT TREE	MILLILITERS	RAW	0.978	RAW	1.000	1.000	
OTHER TRADITIONAL ALCOHOLIC DRINK	MILLILITERS	RAW	1.007	RAW	1.000	1.000	
OTHER TRADITIONAL ALCOHOLIC DRINK	MILLILITERS	COOKED	1.007	RAW	1.000	1.000	1.000
KACHASU (CANA, CAJU)	MILLILITERS	RAW	1.007	RAW	1.000	1.000	
OTHER SOFT DRINK	MILLILITERS	RAW	1.051	RAW	1.000	1.000	
OTHER SOFT DRINK	GRAMS	RAW	1.000	RAW	1.000	1.000	
OTHER SOFT DRINK	MEDIUM STANDARDIZED UNIT	RAW	367.797	RAW	1.000	1.000	
TEA	MILLILITERS	COOKED	1.052	COOKED	1.000		1.000
TEA	GRAMS	RAW	1.000	RAW	1.000	1.000	
TEA	STANDARDIZED	RAW	675.000	RAW	1.000		1.000

FOOD	UNIT	STATE CONSUMED	GMS PER UNIT	STATE IN NUTRIENT COMPOSITION TABLE	CONVERSION FACTOR TO STATE IN NUTRIENT COMP TABLE	RATIO TO CONVERT RAW TO COOKED (GMS)	RATIO TO CONVERT COOKED TO RAW (GMS)
	TABLESPOON						
TEA	STANDARDIZED TABLESPOON	COOKED	675.000	COOKED	1.000		1.000
TEA	STANDARDIZED TEASPOON	RAW	225.000	RAW	1.000		1.000
TEA	STANDARDIZED TEASPOON	COOKED	225.000	COOKED	1.000		1.000
JUICE IN PACKAGGE	MILLILITERS	RAW	1.110	RAW	1.000	1.000	
JUICE IN PACKAGE	GRAMS	RAW	1.000	RAW	1.000	1.000	
SALT	MILLILITERS	RAW	0.845	RAW	1.000	1.000	
SALT	STANDARDIZED TABLESPOON	RAW	4.225	RAW	1.000	1.000	
SALT	STANDARDIZED TEASPOON	RAW	12.675	RAW	1.000	1.000	

ANNEX F.

**KEY NUTRIENTS FROM
NUTRITION COMPOSITION TABLE
COMPILED FOR TSNI CONSUMPTION
(24-HOUR RECALL) SURVEYS**

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
101	1	CORN FLR,WHOLE- GRAIN,WHITE	361	6.9	3.9	0.00	0.42	0.30	7	2.4	1.7	0.0	0.25	0.08	1.90	0.37	0.00	25
102	1	WHEAT FLR,WHITE,ALL- PURPOSE,UNENR	364	10.3	1.0	0.00	0.06	0.30	15	1.2	0.7	0.0	0.12	0.04	1.25	0.04	0.00	26
103	1	RICE FLOUR,WHITE	366	6.0	1.4	0.00	0.11	0.00	10	0.4	0.8	0.0	0.14	0.02	2.59	0.44	0.00	4
104	1	SEMOLINA, ENRICHED	360	12.7	1.1	0.00	0.26		17	4.4	1.1	0.0	0.81	0.57	5.99	0.10	0.00	261
111	1	MAIZE GRAIN, WHITE, DRIED	345	9.4	4.2	0.00			16	3.6	1.8	0.0	0.33	0.10	2.20	0.20		
112	1	RICE,WHITE,MEDIUM- GRAIN,RAW,UNENR (SUBSTITUTE)	360	6.6	0.6	0.00			9	0.8	1.2	0.0	0.07	0.05	1.60	0.15	0.00	9
112	2	RICE,WHITE,MEDIUM- GRAIN,RAW,UNENR (SUBSTITUTE)	360	6.6	0.6	0.00			9	0.8	1.2	0.0	0.07	0.05	1.60	0.15	0.00	9
113	1	RICE,WHITE,MEDIUM- GRAIN,RAW,UNENR	360	6.6	0.6	0.00			9	0.8	1.2	0.0	0.07	0.05	1.60	0.15	0.00	9
113	2	RICE,WHITE,MEDIUM- GRAIN,CKD	130	2.4	0.2	0.00			3	1.5	0.4	0.0	0.17	0.02	1.84	0.05	0.00	97
114	1	SORGHUM	339	11.3	3.3	0.00			28	4.4	1.6	0.0	0.24	0.14	2.93		0.00	
115	1	MILLET,RAW	378	11.0	4.2	0.00	0.05	0.90	8	3.0	1.7	0.0	0.42	0.29	4.72	0.38	0.00	85
115	2	MILLET,COOKED	119	3.5	1.0	0.00	0.02	0.30	3	0.6	0.9	0.0	0.11	0.08	1.33	0.11	0.00	19
121	1	CORN,SWT,WHITE,FRZ,KRN LS ON COB,UNPREP	98	3.3	0.8	0.00			4	0.7	0.7	7.2	0.10	0.09	1.68	0.18	0.00	40
121	2	MAIZE, WHITE, ON COB, TOASTED	365	8.0	4.8	0.00			2	3.0	0.6	4.8	0.17	0.07	2.20	0.09	0.00	31
131	1	CORN BRAN,CRUDE	224	8.4	0.9	4.00	0.42	0.30	42	2.8	1.6	0.0	0.01	0.10	2.74	0.15	0.00	4
131	2	CORN BRAN,CRUDE	224	8.4	0.9	4.00	0.42	0.30	42	2.8	1.6	0.0	0.01	0.10	2.74	0.15	0.00	4
151	2	BREAD,WHITE,COMMLY PREP (INCL SOFT BREAD CRUMBS)	266	7.6	3.3	0.00	0.22	3.10	151	3.7	0.7	0.0	0.46	0.33	4.39	0.08	0.00	171
152	1	SPAGHETTI,DRY,UNENRICH ED	371	12.8	1.6	0.00			18	1.3	1.2	0.0	0.09	0.06	1.70	0.11	0.00	18
152	2	SPAGHETTI,CKD,ENR,WO/ SALT	141	4.8	0.7	0.00	0.06	0.10	7	1.4	0.5	0.0	0.20	0.10	1.67	0.04	0.00	123
190	1	CORN,YELLOW	365	9.4	4.7	11.00	0.49	0.30	7	2.7	2.2	0.0	0.39	0.20	3.63	0.62	0.00	19
190	2	SPAGHETTI,CKD,UNENR,W/ SALT	141	4.8	0.7	0.00			7	0.5	0.5	0.0	0.02	0.02	0.40	0.04	0.00	7
201	1	CASSAVA FLOUR (AS SUBSTITUTE)	320	1.6	0.5	0.00			66	1.0	0.7	4.0			0.90		0.00	
202	1	CASSAVA FLOUR (AS SUBSTITUTE)	320	1.6	0.5	0.00			66	1.0	0.7	4.0			0.90		0.00	

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcbg RAE	mcbg	mcbg	mg	mg	mg	mg	mg	mg	mg	mg	mcbg	mcbg dfe
203	1	CASSAVA,RAW	160	1.4	0.3	1.00	0.19	1.90	16	0.3	0.3	20.6	0.09	0.05	0.85	0.09	0.00	27
204	1	SWEETPOTATO,CKD,BKD IN SKN,WO/SALT	90	2.0	0.2	961.00	0.71	2.30	38	0.7	0.3	19.6	1.45	0.11	1.49	0.29	0.00	6
211	1	SWEETPOTATO, WHITE- FLESH, RAW	110	1.6	0.1	2.92	0.26	1.80	30	0.6	0.3	22.7	0.08	0.06	0.56	0.21	0.00	14
211	2	SWEETPOTATO, WHITE- FLESH, CKD,BLD,WO/ SKN	76	1.4	0.1	3.17	0.94	2.10	27	0.7	0.2	12.8	0.06	0.05	0.54	0.17	0.00	6
212	1	SWEETPOTATO, YELLOW- FLESH, RAW	110	1.6	0.1	150.00	0.26	1.80	30	0.6	0.3	22.7	0.08	0.06	0.56	0.21	0.00	14
212	2	SWEETPOTATO, YELLOW- FLESH, CKD,BLD,WO/ SKN	76	1.4	0.1	162.33	0.94	2.10	27	0.7	0.2	12.8	0.06	0.05	0.54	0.17	0.00	6
213	1	SWEETPOTATO, ORANGE- FLESHED,RAW	76	1.6	0.1	727.00	0.26	1.80	30	0.6	0.3	22.7	0.08	0.06	0.56	0.21	0.00	14
213	2	SWEETPOTATO, ORANGE- FLESHED, CKD,BLD,WO/ SKN	76	1.4	0.1	788.00	0.94	2.10	27	0.7	0.2	12.8	0.06	0.05	0.54	0.17	0.00	6
221	1	POTATO,FLESH & SKN,RAW	77	2.0	0.1	0.00	0.01	1.90	12	0.8	0.3	19.7	0.08	0.03	1.05	0.30	0.00	16
221	2	POTATOES,BLD,CKD IN SKN,FLESH,WO/SALT	87	1.9	0.1	0.00	0.01	2.10	5	0.3	0.3	13.0	0.11	0.02	1.44	0.30	0.00	10
230	1	TARO,RAW	112	1.5	0.2	4.00	2.38	1.00	43	0.6	0.2	4.5	0.10	0.03	0.60	0.28	0.00	22
230	2	TARO,COOKED,WITHOUT SALT	142	0.5	0.1	4.00	2.93	1.20	18	0.7	0.3	5.0	0.11	0.03	0.51	0.33	0.00	19
290	1	YAM,RAW	118	1.5	0.2	7.00	0.39	2.60	17	0.5	0.2	17.1	0.11	0.03	0.55	0.29	0.00	23
290	2	YAM,CKD,BLD,DRND,OR BKD,WO/SALT	116	1.5	0.1	6.00	0.38	2.60	14	0.5	0.2	12.1	0.10	0.03	0.55	0.23	0.00	16
301	1	COWPEAS,CATJANG,MATUR E SEEDS,RAW	343	23.9	2.1	2.00			85	10.0	6.1	1.5	0.68	0.17	2.80	0.36	0.00	639
301	2	COWPEAS,COMMON (BLKEYES,CRWDR,STHRN), MATURE,CKD,BLD,WO/SALT	116	7.7	0.5	1.00	0.28	1.70	24	2.5	1.3	0.4	0.20	0.06	0.50	0.10	0.00	208
302	1	BEANS,KIDNEY,ALL TYPES,MATURE SEEDS,RAW	333	23.6	0.8	0.00	0.22	19.00	143	8.2	2.8	4.5	0.53	0.22	2.06	0.40	0.00	394
302	2	BEANS,KIDNEY,ALL TYPES,MATURE SEEDS,CKD,BLD,WO/SALT	127	8.7	0.5	0.00	0.03	8.40	35	2.2	1.0	1.2	0.16	0.06	0.58	0.12	0.00	130
303	1	PIGEON PEAS (RED GM),MATURE SEEDS,RAW	343	21.7	1.5	1.00			130	5.2	2.8	0.0	0.64	0.19	2.97	0.28	0.00	456
303	2	PIGEON PEAS (RED GM),MATURE SEEDS,CKD,BLD,WO/SALT	121	6.8	0.4	0.00			43	1.1	0.9	0.0	0.15	0.06	0.78	0.05	0.00	111
304	1	MUNG BNS,MATURE	347	23.9	1.2	6.00	0.51	9.00	132	6.7	2.7	4.8	0.62	0.23	2.25	0.38	0.00	625

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
		SEEDS,RAW																
304	2	MUNG BNS,MATURE SEEDS,CKD,BLD,WO/SALT	105	7.0	0.4	1.00	0.15	2.70	27	1.4	0.8	1.0	0.16	0.06	0.58	0.07	0.00	159
309	1	BEANS,PINTO,MATURE SEEDS,RAW	318	20.7	1.4	0.00	0.21	5.60	107	5.2	2.6	6.3	0.51	0.34	1.45	0.55	0.00	506
309	2	BEANS,PINTO,MATURE SEEDS,CKD,BLD,WO/SALT	140	9.1	0.8	0.00	0.94	3.50	42	2.1	1.0	0.8	0.10	0.07	0.20	0.09	0.00	172
311	1	COWPEAS,YOUNG PODS W/SEEDS,RAW	44	3.3	0.3	80.00			65	1.0	0.3	33.0	0.15	0.14	1.20	0.17	0.00	53
311	2	COWPEAS (BLACKYES),IMMAT SEEDS,CKD,BLD,DRND,WO/SALT	97	3.2	0.4	40.00	0.22	26.60	128	1.1	1.0	2.2	0.10	0.15	1.40	0.07	0.00	127
312	1	BEANS/PEAS, FRESH, SHELLED	105	8.2	0.4	12.50			22	1.8	2.9	25.0			1.60	0.05	0.00	
312	2	BEANS,PINTO,IMMAT SEEDS,FRZ,CKD,BLD,DRND,WO/SALT	162	9.3	0.5	0.00			52	2.7	0.7	0.7	0.27	0.11	0.63	0.19	0.00	34
313	1	PIGEONPEAS,IMMAT SEEDS,RAW	136	7.2	1.6	3.00	0.39	24.00	42	1.6	1.0	39.0	0.40	0.17	2.20	0.07	0.00	173
313	2	PIGEONPEAS,IMMAT SEEDS,CKD,BLD,DRND,WO/SALT	111	6.0	1.4	3.00	0.32	19.80	41	1.6	0.8	28.1	0.35	0.17	2.15	0.05	0.00	100
314	1	BAMBARA GROUNDNUT, FRESH	141	12.4	6.4	16.00	0.00	0.00	145	2.5	0.9	17.0	0.30	0.20	1.30	0.10	0.00	
314	2	BAMBARA NUT, ROASTED	371	19.1	7.9	16.00			57	4.1	0.9							
319	1	BEANS,FRENCH,MATURE SEEDS,RAW	343	18.8	2.0	0.00			186	3.4	1.9	4.6	0.54	0.22	2.08	0.40	0.00	399
319	2	BEANS,FRENCH,MATURE SEEDS,CKD,BLD,WO/SALT	129	7.1	0.8	0.00			63	1.1	0.6	1.2	0.13	0.06	0.55	0.11	0.00	75
321	1	LENTILS,MATURE SEEDS,RAW	338	28.1	1.0	2.00	0.33	5.00	51	9.0	3.6	6.2	0.48	0.25	2.62	0.54	0.00	433
321	2	LENTILS,MATURE SEEDS,CKD,BLD,WO/SALT	116	9.0	0.4	0.00	0.11	1.70	19	3.3	1.3	1.5	0.17	0.07	1.06	0.18	0.00	181
322	1	BROADBEANS (FAVA BNS),MATURE SEEDS,RAW	341	26.1	1.5	3.00	0.05	9.00	103	6.7	3.1	1.4	0.56	0.33	2.83	0.37	0.00	423
322	2	BROADBEANS (FAVA BNS),MATURE SEEDS,CND	71	5.5	0.2	1.00			26	1.0	0.6	1.8	0.02	0.05	0.96	0.05	0.00	33
331	1	PEAS,GREEN,RAW	81	5.4	0.4	38.00	0.13	24.80	25	1.5	1.2	40.0	0.27	0.13	2.09	0.17	0.00	65
331	2	PEAS,GRN,CKD,BLD,DRND,WO/SALT	84	5.4	0.2	40.00	0.14	25.90	27	1.5	1.2	14.2	0.26	0.15	2.02	0.22	0.00	63

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcbg RAE	mcbg	mcbg	mg	mg	mg	mg	mg	mg	mg	mg	mcbg	mcbg dfe
332	1	BEANS,FAVA,IN POD,RAW	88	7.9	0.7	17.00			37	1.6	1.0	3.7	0.13	0.29	2.25	0.10	0.00	148
332	2	BROADBEANS,IMMAT SEEDS,CKD,BLD,DRND,WO/ SALT	62	4.8	0.5	14.00			18	1.5	0.5	19.8	0.13	0.09	1.20	0.03	0.00	58
339	1	PIGEONPEAS,IMMAT SEEDS,RAW	136	7.2	1.6	3.00	0.39	24.00	42	1.6	1.0	39.0	0.40	0.17	2.20	0.07	0.00	173
339	2	PIGEONPEAS,IMMAT SEEDS,CKD,BLD,DRND,WO/ SALT	111	6.0	1.4	3.00	0.32	19.80	41	1.6	0.8	28.1	0.35	0.17	2.15	0.05	0.00	100
401	1	GROUNDNUTS, DRY	570	23.0	45.0	0.67			49	3.8	3.3	1.0			15.50	0.50	0.00	
401	2	GROUNDNUTS, DRY	570	23.0	45.0	0.67			49	3.8	3.3	1.0			15.50	0.50	0.00	
402	1	PEANUTS,ALL TYPES,RAW	567	25.8	49.2	0.00	8.33	0.00	92	4.6	3.3	0.0	0.64	0.14	12.07	0.35	0.00	240
402	2	PEANUTS,ALL TYPES,CKD,BLD,W/SALT	318	13.5	22.0	0.00	4.10	0.00	55	1.0	1.8	0.0	0.26	0.06	5.26	0.15	0.00	75
403	1	SESAME SEEDS,WHOLE,DRIED	573	17.7	49.7	0.00	0.25	0.00	975	14.6	7.8	0.0	0.79	0.25	4.52	0.79	0.00	97
403	2	SESAME SD KRNLs,TSTD,WO/SALT (DECORT)	567	17.0	48.0	3.00	0.25	0.00	131	7.8	10.2	0.0	1.21	0.47	5.44	0.15	0.00	96
404	1	SUNFLOWER SD KRNLs,DRIED	570	22.8	49.6	3.00	34.50	2.70	116	6.8	5.1	1.4	2.29	0.25	4.50	0.77	0.00	227
405	1	NUTS,CASHEW NUTS,RAW	566	18.2	46.9	0.00	0.90	34.10	37	6.7	5.8	0.5	0.42	0.06	1.06	0.42	0.00	25
405	2	CASHEW NUTS,DRY RSTD,WO/SALT	574	15.3	46.4	0.00	0.92	34.70	45	6.0	5.6	0.0	0.20	0.20	1.40	0.26	0.00	69
411	1	PUMPKIN SEEDS, WITHOUT COAT	575	23.0	46.0	0.75			57	2.8	7.6	2.0			1.40			
411	2	PUMPKIN&SQUASH SEEDS,WHL,RSTD,WO/SALT	446	18.6	19.4	3.00			55	3.3	10.3	0.3	0.03	0.05	0.29	0.04	0.00	9
412	1	BREADFRUIT SEEDS,RAW	191	7.4	5.6	13.00			36	3.7	0.9	6.6	0.48	0.30	0.44	0.32	0.00	53
413	1	WATERMELON SD KRNLs,DRIED	557	28.3	47.4	0.00			54	7.3	10.2	0.0	0.19	0.15	3.55	0.09	0.00	58
413	2	WATERMELON SD KRNLs,DRIED	557	28.3	47.4	0.00			54	7.3	10.2	0.0	0.19	0.15	3.55	0.09	0.00	58
490	1	SUNFLOWER SD KRNLs,DRIED	570	22.8	49.6	3.00	34.50	2.70	116	6.8	5.1	1.4	2.29	0.25	4.50	0.77	0.00	227
490	2	SUNFLOWER SD KRNLs,DRY RSTD,WO/SALT	582	19.3	49.8	1.00	21.27	2.70	70	3.8	5.3	1.4	0.11	0.25	7.04	0.80	0.00	237
501	1	FISH SMALL, WHOLE DRIED	335	58.6	9.4	0.00	0.00	0.00	1700	2.5	5.2	0.0	0.10	0.30	8.10	0.40	12.00	
501	2	FISH SMALL, WHOLE DRIED	335	58.6	9.4	0.00	0.00	0.00	1700	2.5	5.2	0.0	0.10	0.30	8.10	0.40	12.00	
502	1	GROUPEr,MIXED SPECIES,RAW	92	19.4	1.0	43.00			27	0.9	0.5	0.0	0.07	0.01	0.31	0.30	0.60	9

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcbg RAE	mcbg	mcbg	mg	mg	mg	mg	mg	mg	mg	mg	mcbg	mcbg dfe
502	2	GROUPER,MXD SP,CKD,DRY HEAT	118	24.8	1.3	50.00			21	1.1	0.5	0.0	0.08	0.01	0.38	0.35	0.69	10
503	1	SARDINE,PACIFIC,CND IN TOMATO SAU,DRND SOL W/BONE	186	20.9	10.5	34.00	1.44	0.40	240	2.3	1.4	1.0	0.04	0.23	4.20	0.12	9.00	24
504	1	SHRIMP,MIXED SPECIES,RAW	106	20.3	1.7	54.00	1.10	0.00	52	2.4	1.1	2.0	0.03	0.03	2.55	0.10	1.16	3
504	2	SHRIMP,MXD SP,CND	120	23.1	2.0	18.00	0.93	0.00	59	2.7	1.3	2.3	0.03	0.04	2.76	0.11	1.12	2
505	1	SHRIMP, DRIED	345	75.6	3.8	0.00	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	
506	1	CRAB,DUNGENESS,RAW	86	17.4	1.0	27.00			46	0.4	4.3	3.5	0.05	0.17	3.14	0.15	9.00	44
506	2	CRAB,DUNGENESS,CKD,MOI ST HEAT	110	22.3	1.2	31.00			59	0.4	5.5	3.6	0.06	0.20	3.62	0.17	10.38	42
507	1	SQUID,MIXED SPECIES,RAW	92	15.6	1.4	10.00	1.20	0.00	32	0.7	1.5	4.7	0.02	0.41	2.18	0.06	1.30	5
509	1	CLAM,MIXED SPECIES,RAW	74	12.8	1.0	90.00	0.31	0.20	46	14.0	1.4	13.0	0.08	0.21	1.77	0.06	49.44	16
509	2	CLAM,MXD SP,CND,DRND SOL	148	25.6	2.0	181.00	0.62	0.40	92	28.0	2.7	22.1	0.15	0.43	3.35	0.11	98.89	29
521	1	CHICKEN,STEWING,MEAT&S KN,RAW	258	17.6	20.3	52.00	0.33	2.40	10	1.0	1.2	0.0	0.11	0.17	6.26	0.33	0.32	6
521	2	CHICKEN,STEWING,MEAT&S KN,CKD,STWD	285	26.9	18.9	39.00			13	1.4	1.8	0.0	0.09	0.24	5.80	0.25	0.23	5
522	1	QUAIL,MEAT AND SKIN,RAW	192	19.6	12.1	73.00			13	4.0	2.4	6.1	0.24	0.26	7.54	0.60	0.43	8
522	2	PIGEON, FRESH MEAT WITH SKIN COOKED	245	21.6	17.8	8.00	0.50	0.00	45	2.0	1.0	0.0	0.10	0.30	4.90	0.60	1.00	
523	1	PIGEON, FRESH MEAT WITH SKIN - NOT COOKED	226	16.4	18.0	10.00	0.50	0.00	45	2.0	1.0	0.0	0.10	0.30	5.30	0.60	0.00	
523	2	PIGEON, FRESH MEAT WITH SKIN COOKED	245	21.6	17.8	8.00	0.50	0.00	45	2.0	1.0	0.0	0.10	0.30	4.90	0.60	1.00	
524	1	DUCK,DOMESTICATED,MEA T&SKN,RAW	404	11.5	39.3	168.00	0.70	5.50	11	2.4	1.4	2.8	0.20	0.21	3.93	0.19	0.25	13
524	2	DUCK,DOMESTICATED,MEA T&SKN,CKD,RSTD	337	19.0	28.4	63.00	0.70	5.10	11	2.7	1.9	0.0	0.17	0.27	4.83	0.18	0.30	6
525	1	GUINEA HEN,MEAT&SKN,RAW	158	23.4	6.5	28.00			11	0.8	1.1	1.3	0.06	0.10	7.67	0.38	0.34	5
525	2	PIGEON, FRESH MEAT WITH SKIN COOKED	245	21.6	17.8	8.00	0.50	0.00	45	2.0	1.0	0.0	0.10	0.30	4.90	0.60	1.00	
531	1	BEEF,RND,TIP RND,LN,1/4"FAT,ALL GRDS,RAW	124	21.1	3.8	0.00			4	2.2	4.9	0.0	0.12	0.20	3.39	0.44	3.22	8
531	2	BEEF,RND,TIP RND,LN,1/4" FAT,ALL GRDS,CKD,RSTD	185	28.7	6.9	0.00	0.14	1.30	5	2.9	7.1	0.0	0.10	0.27	3.74	0.40	2.89	8
532	1	PORK,FRSH,COMP	216	19.0	15.0	2.00			19	0.9	2.0	0.5	0.84	0.25	4.50	0.45	0.66	5

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
		(LEG,LOIN,SHLDR,&SPARERI BS),LN&FAT,RAW																
532	2	PORK,FRSH,SHLDR,ARM PICNIC,LN&FAT,CKD,RSTD	317	23.5	24.0	2.00			19	1.2	3.5	0.2	0.52	0.30	3.92	0.35	0.71	4
533	1	GOAT,RAW	109	20.6	2.3	0.00			13	2.8	4.0	0.0	0.11	0.49	3.75		1.13	5
533	2	GAME MEAT,GOAT,CKD,RSTD	143	27.1	3.0	0.00	0.34	1.20	17	3.7	5.3	0.0	0.09	0.61	3.95	0.00	1.19	5
534	1	GAME MEAT,ANTELOPE,RAW	114	22.4	2.0	0.00			3	3.2	1.3	0.0	0.32	0.58				
534	2	GAME MEAT,ANTELOPE,CKD,RSTD	150	29.5	2.7	0.00			4	4.2	1.7	0.0	0.26	0.73				9
535	1	LAMB,VAR MEATS&BY- PRODUCTS,LIVER,RAW	139	20.4	5.0	7391.0 0			7	7.4	4.7	4.0	0.34	3.63	16.11	0.90	90.05	230
535	2	LAMB,VAR MEATS&BY- PRODUCTS,LIVER,CKD,BRS D	220	30.6	8.8	7491.0 0			8	8.3	7.9	4.0	0.23	4.03	12.15	0.49	76.50	73
539	1	GAME MEAT,ANTELOPE,RAW	114	22.4	2.0	0.00			3	3.2	1.3	0.0	0.32	0.58				
539	2	GAME MEAT,ANTELOPE,CKD,RSTD	150	29.5	2.7	0.00			4	4.2	1.7	0.0	0.26	0.73				9
540	1	CHICKEN,STEWING,MEAT&S KN,RAW	258	17.6	20.3	52.00	0.33	2.40	10	1.0	1.2	0.0	0.11	0.17	6.26	0.33	0.32	6
540	2	CHICKEN,STEWING,MEAT&S KN,CKD,STWD	285	26.9	18.9	39.00			13	1.4	1.8	0.0	0.09	0.24	5.80	0.25	0.23	5
541	1	PORK,FRSH,COMP (LEG,LOIN,SHLDR,&SPARERI BS),LN&FAT,RAW	216	19.0	15.0	2.00			19	0.9	2.0	0.5	0.84	0.25	4.50	0.45	0.66	5
541	2	PORK,FRSH,SHLDR,ARM PICNIC,LN&FAT,CKD,RSTD	317	23.5	24.0	2.00			19	1.2	3.5	0.2	0.52	0.30	3.92	0.35	0.71	4
542	1	MONKEY: GHANA & CHICKEN,STEWING,MEAT&S KN,RAW	83	17.6	1.3	52.00	0.33	2.40	140	5.0	1.2	0.0	0.11	0.17	6.26	0.33	0.32	6
542	2	MONKEY, GHANA & CHICKEN,STEWING,MEAT&S KN,CKD,STWD	83	17.6	1.3	39.00			140	5.0	1.8	0.0	0.09	0.24	5.80	0.25	0.23	5
543	1	GAME MEAT,RABBIT,WILD,RAW	114	21.8	2.3	0.00			12	3.2	3.2	0.0	0.03	0.06	6.50			
543	2	GAME MEAT,RABBIT,DOMESTICAT ED,COMP OF CUTS,CKD,RSTD	197	29.1	8.1	0.00			19	2.3	2.3	0.0	0.09	0.21	8.43	0.47	8.30	11
544	1	FROG LEGS,RAW	73	16.4	0.3	15.00	1.00	0.10	18	1.5	1.0	0.0	0.14	0.25	1.20	0.12	0.40	15

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcbg RAE	mcbg	mcbg	mg	mg	mg	mg	mg	mg	mg	mg	mcbg	mcbg dfe
549	1	PORK,FRSH,COMP (LEG,LOIN,SHLDR,&SPARERI BS),LN&FAT,RAW	216	19.0	15.0	2.00			19	0.9	2.0	0.5	0.84	0.25	4.50	0.45	0.66	5
549	2	PORK,FRSH,SHLDR,ARM PICNIC,LN&FAT,CKD,RSTD	317	23.5	24.0	2.00			19	1.2	3.5	0.2	0.52	0.30	3.92	0.35	0.71	4
551	1	LOCUST, RAW OR COOKED	274	18.2	21.5	1.00	0.00	0.00	90	2.5	8.4	2.0	0.70	0.20	4.10	0.30	1.60	
552	1	SNAIL,RAW	90	16.1	1.4	30.00	5.00	0.10	10	3.5	1.0	0.0	0.01	0.12	1.40	0.13	0.50	6
553	1	TERMITES, FRESH	340	20.0	28.0	0.00			12	1.0	2.5							
561	1	EGG,WHOLE,RAW,FRESH	147	12.6	9.9	140.00	0.97	0.30	53	1.8	1.1	0.0	0.07	0.48	0.07	0.14	1.29	47
561	2	EGG,WHL,CKD,HARD- BOILED	155	12.6	10.6	169.00	1.03	0.30	50	1.2	1.1	0.0	0.07	0.51	0.06	0.12	1.11	44
571	1	MILK,WHL,3.25% MILKFAT	60	3.2	3.3	28.00	0.06	0.20	101	0.0	0.4	0.0	0.04	0.18	0.11	0.04	0.44	5
572	1	MILK,DRY,WHOLE	496	26.3	26.7	257.00	0.48	1.80	912	0.5	3.3	8.6	0.28	1.21	0.65	0.30	3.25	37
573	1	MILK,CND,COND,SWTND	321	7.9	8.7	74.00	0.16	0.60	284	0.2	0.9	2.6	0.09	0.42	0.21	0.05	0.44	11
574	1	YOGURT,PLN,WHL MILK,8 GRAMS PROT PER 8 OZ	61	3.5	3.3	27.00	0.06	0.20	121	0.1	0.6	0.5	0.03	0.14	0.08	0.03	0.37	7
575	1	CHEESE,GOUDA	356	24.9	27.4	165.00	0.24	2.30	700	0.2	3.9	0.0	0.03	0.33	0.06	0.08	1.54	21
601	1	CABBAGE,CHINESE (PAK- CHOI),RAW	13	1.5	0.2	223.00	0.09	35.80	105	0.8	0.2	45.0	0.04	0.07	0.50	0.19	0.00	66
601	2	CABBAGE,CHINESE (PAK- CHOI),CKD,BLD,DRND,WO/S ALT	12	1.6	0.2	212.00	0.09	34.00	93	1.0	0.2	26.0	0.03	0.06	0.43	0.17	0.00	41
602	1	LETTUCE,GRN LEAF,RAW	15	1.4	0.2	370.00	0.29	173.60	36	0.9	0.2	18.0	0.07	0.08	0.38	0.09	0.00	38
603	1	CABBAGE,RAW	24	1.4	0.1	9.00	0.15	60.00	47	0.6	0.2	32.2	0.05	0.04	0.30	0.10	0.00	43
603	2	CABBAGE,CKD,BLD,DRND,W O/SALT	22	1.0	0.4	7.00	0.12	48.90	31	0.2	0.1	20.1	0.06	0.06	0.28	0.11	0.00	20
604	1	PUMPKIN LEAVES,RAW	19	3.2	0.4	97.00			39	2.2	0.2	11.0	0.09	0.13	0.92	0.21	0.00	36
604	2	PUMPKIN,LEAVES,CKD,BLD, DRND,W/SALT	21	2.7	0.2	80.00	0.96	108.00	43	3.2	0.2	1.0	0.07	0.14	0.85	0.20	0.00	25
605	1	CASSAVA LEAVES, RAW	90	7.0	1.0	115.38			300	7.6	0.4	310.0			2.40			
606	1	COWPEAS,LEAFY TIPS,RAW	29	4.1	0.3	36.00			63	1.9	0.3	36.0	0.35	0.18	1.12	0.18	0.00	101
606	2	COWPEAS,LEAFY TIPS,CKD,BLD,DRND,WO/SA LT	22	4.7	0.1	29.00			69	1.1	0.2	18.4	0.26	0.14	1.01	0.14	0.00	60
607	1	WEETPOTATO LEAVES,RAW	35	4.0	0.3	51.00			37	1.0	0.3	11.0	0.16	0.35	1.13	0.19	0.00	80
607	2	SWEETPOTATO LEAVES,CKD,STMD,WO/SAL T	34	2.3	0.3	46.00	0.96	108.60	24	0.6	0.3	1.5	0.11	0.27	1.00	0.16	0.00	49
608	1	AMARANTH LEAVES,RAW	23	2.5	0.3	0.00		1140.0 0	215	2.3	0.9	43.3	0.03	0.16	0.66	0.19	0.00	85
608	2	AMARANTH	21	2.1	0.2	139.00			209	2.3	0.9	41.1	0.02	0.13	0.56	0.18	0.00	57

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
		LEAVES,CKD,BLD,DRND,WO/ SALT																
609	1	TARO LEAVES,RAW	42	5.0	0.7	241.00	2.02	108.60	107	2.3	0.4	52.0	0.21	0.46	1.51	0.15	0.00	126
609	2	TARO LEAVES,CKD,STMD,WO/SAL T	24	2.7	0.4	212.00			86	1.2	0.2	35.5	0.14	0.38	1.27	0.07	0.00	48
611	1	PUMPKIN,RAW	26	1.0	0.1	369.00	1.06	1.10	21	0.8	0.3	9.0	0.05	0.11	0.60	0.06	0.00	16
611	2	SQUASH,WNTR,HUBBARD,C KD,BLD,MSHD,W/SALT	30	1.5	0.4	200.00			10	0.3	0.1	6.5	0.04	0.03	0.33	0.10	0.00	10
612	1	CUCUMBER,WITH PEEL,RAW	15	0.7	0.1	5.00	0.03	16.40	16	0.3	0.2	2.8	0.03	0.03	0.10	0.04	0.00	7
613	1	PEPPERS,HOT CHILI,RED,RAW	43	1.9	1.1	48.00	0.69	14.00	14	1.0	0.3	143.7	0.07	0.09	1.24	0.51	0.00	23
613	2	PEPPERS,HOT CHILI,RED,RAW	43	1.9	1.1	48.00	0.69	14.00	14	1.0	0.3	143.7	0.07	0.09	1.24	0.51	0.00	23
614	1	PEPPERS,SWEET,GREEN,RA W	20	0.9	0.2	18.00	0.37	7.40	10	0.3	0.1	80.4	0.06	0.03	0.48	0.22	0.00	11
614	2	PEPPERS,SWT,GRN,CKD,BL D,DRND,W/SALT	28	0.9	0.2	30.00			9	0.5	0.1	74.4	0.06	0.03	0.48	0.23	0.00	16
615	1	CARROTS,RAW	41	0.9	0.2	602.00	0.66	13.20	33	0.3	0.2	5.9	0.07	0.06	0.98	0.14	0.00	19
615	2	CARROTS,CKD,BLD,DRND,W /SALT	35	0.8	0.2	845.00	1.03	13.70	30	0.3	0.2	3.6	0.07	0.04	0.65	0.15	0.00	2
616	1	TOMATOES,RED,RIPE,RAW, YEAR RND AVERAGE	18	0.9	0.2	42.00	0.54	7.90	10	0.3	0.2	12.7	0.04	0.02	0.59	0.08	0.00	15
616	2	TOMATOES,RED,RIPE,CKD,B LD,W/SALT	27	1.1	0.4	37.00			6	0.6	0.1	22.8	0.07	0.06	0.75	0.10	0.00	13
621	1	ONIONS,RAW	42	0.9	0.1	0.00	0.02	0.40	22	0.2	0.2	6.4	0.05	0.03	0.08	0.15	0.00	19
621	2	ONIONS,CKD,BLD,DRND,W/S ALT	44	1.4	0.2	0.00	0.02	0.50	22	0.2	0.2	5.2	0.04	0.02	0.17	0.13	0.00	15
622	1	GARLIC,RAW	149	6.4	0.5	0.00	0.01	1.40	181	1.7	1.2	31.2	0.20	0.11	0.70	1.24	0.00	3
623	1	MUSHROOMS,RAW	22	3.1	0.3	0.00	0.01	0.10	3	0.5	0.5	2.4	0.09	0.42	3.85	0.12	0.04	16
623	2	MUSHROOMS,CKD,BLD,DRN D,W/SALT	28	2.2	0.5	0.00	0.01	0.10	6	1.7	0.9	4.0	0.07	0.30	4.46	0.10	0.00	18
624	1	OKRA,RAW	31	2.0	0.1	19.00	0.36	53.00	81	0.8	0.6	21.1	0.20	0.06	1.00	0.22	0.00	88
624	2	OKRA,CKD,BLD,DRND,W/SAL T	22	1.9	0.2	14.00	0.27	40.00	77	0.3	0.4	16.3	0.13	0.06	0.87	0.19	0.00	46
625	1	EGGPLANT,RAW	24	1.0	0.2	1.00	0.30	3.50	9	0.2	0.2	2.2	0.04	0.04	0.65	0.08	0.00	22
625	2	EGGPLANT,CKD,BLD,DRND, W/SALT	35	0.8	0.2	2.00	0.41	2.90	6	0.3	0.1	1.3	0.08	0.02	0.60	0.09	0.00	14
629	1	TARO,RAW	112	1.5	0.2	4.00	2.38	1.00	43	0.6	0.2	4.5	0.10	0.03	0.60	0.28	0.00	22
629	2	TARO,COOKED,WITHOUT SALT	142	0.5	0.1	4.00	2.93	1.20	18	0.7	0.3	5.0	0.11	0.03	0.51	0.33	0.00	19

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
701	1	BANANAS,RAW	89	1.1	0.3	3.00	0.10	0.50	5	0.3	0.2	8.7	0.03	0.07	0.67	0.37	0.00	20
701	2	PLANTAINS,COOKED	116	0.8	0.2	45.00	0.13	0.70	2	0.6	0.1	10.9	0.05	0.05	0.76	0.24	0.00	26
702	1	PAPAYAS,RAW	39	0.6	0.1	55.00	0.73	2.60	24	0.1	0.1	61.8	0.03	0.03	0.34	0.02	0.00	38
703	1	MANGOS,RAW	65	0.5	0.3	38.00	1.12	4.20	10	0.1	0.0	27.7	0.06	0.06	0.58	0.13	0.00	14
703	2	MANGOS,COOKED, NO VITAMIN A	65	0.5	0.3	0.00	1.12	4.20	10	0.1	0.0	27.7	0.06	0.06	0.58	0.13	0.00	14
704	1	ORANGES,RAW,ALL COMM VAR	47	0.9	0.1	11.00	0.18	0.00	40	0.1	0.1	53.2	0.09	0.04	0.28	0.06	0.00	30
705	1	TANGERINES,(MANDARIN ORANGES),RAW	44	0.6	0.2	34.00	0.15	0.00	14	0.1	0.2	30.8	0.11	0.02	0.16	0.07	0.00	20
706	1	GRAPEFRUIT,RAW,PINK&R D&WHITE,ALL AREAS	32	0.6	0.1	46.00	0.13	0.00	12	0.1	0.1	34.4	0.04	0.02	0.25	0.04	0.00	10
707	1	LEMONS,RAW,WITH PEEL	20	1.2	0.3	2.00			61	0.7	0.1	77.0	0.05	0.04	0.20	0.11	0.00	
708	1	PINEAPPLE,RAW,ALL VAR	48	0.5	0.1	3.00	0.02	0.70	13	0.3	0.1	36.2	0.08	0.03	0.49	0.11	0.00	15
709	1	AVOCADOS,RAW,ALL COMM VAR	160	2.0	14.7	7.00	2.07	21.00	12	0.6	0.6	10.0	0.07	0.13	1.74	0.26	0.00	58
710	1	JACKFRUIT,RAW	94	1.5	0.3	15.00			34	0.6	0.4	6.7	0.03	0.11	0.40	0.11	0.00	14
711	1	APPLES,RAW,WITH SKIN	52	0.3	0.2	3.00	0.18	2.20	6	0.1	0.0	4.6	0.02	0.03	0.09	0.04	0.00	3
712	1	PASSION- FRUIT,(GRANADILLA),PURPL E,RAW	97	2.2	0.7	64.00	0.02	0.70	12	1.6	0.1	30.0	0.00	0.13	1.50	0.10	0.00	14
713	1	GUAVAS,COMMON,RAW	51	0.8	0.6	31.00	0.73	2.60	20	0.3	0.2	183.5	0.05	0.05	1.20	0.14	0.00	14
714	1	WATERMELON,RAW	30	0.6	0.2	28.00	0.05	0.10	7	0.2	0.1	8.1	0.03	0.02	0.18	0.05	0.00	3
716	1	CASHEW FRUIT	51	0.8	0.6	79.00	0.00	0.00	20	0.3	0.2	184.0	0.10	0.10	1.20	0.10	0.00	
717	1	COCONUT MILK,RAW (LIQ EXPRESSED FROM GRATED MEAT&H2O)	230	2.3	23.8	0.00	0.15	0.10	16	1.6	0.7	2.8	0.03	0.00	0.76	0.03	0.00	16
718	1	COCONUT H2O (LIQ FROM COCONUTS)	19	0.7	0.2	0.00	0.00	0.00	24	0.3	0.1	2.4	0.03	0.06	0.08	0.03	0.00	3
720	1	LITCHIS,RAW	66	0.8	0.4	0.00	0.07	0.40	5	0.3	0.1	71.5	0.01	0.07	0.60	0.10	0.00	14
721	1	PAPAYAS,RAW EXCEPT REMOVED VITAMIN A EQUIV CONTENT	39	0.6	0.1	0.00	0.73	2.60	24	0.1	0.1	61.8	0.03	0.03	0.34	0.02	0.00	38
801	1	SUGARS,GRANULATED	387	0.0	0.0	0.00	0.00	0.00	1	0.0	0.0	0.0	0.00	0.02	0.00	0.00	0.00	0
802	1	SUGAR CANE	54	0.6	0.1	0.00			8	1.4	0.0	3.0			0.10			
803	2	CANDIES,HARD	394	0.0	0.2	0.00	0.00	0.00	3	0.3	0.0	0.0	0.00	0.00	0.01	0.00	0.00	0
804	1	HONEY	304	0.3	0.0	0.00	0.00	0.00	6	0.4	0.2	0.5	0.00	0.04	0.12	0.02	0.00	2
805	2	JAMS AND PRESERVES	278	0.4	0.1	1.00	0.12	0.00	20	0.5	0.1	8.8	0.02	0.08	0.04	0.02	0.00	11
811	2	COOKIES,SUGAR,COMMPLY PREP,REG (INCL VANILLA)	478	5.1	21.1	26.00	0.27	8.60	21	2.1	0.4	0.1	0.23	0.21	2.69	0.06	0.19	82
812	2	CAKE,SHORTCAKE,BISCUIT-	346	6.1	14.2	18.00			205	2.5	0.5	0.2	0.31	0.27	2.57	0.03	0.07	83

CODE	STATE	DESCRIPTION OF ITEM	ENERGY	protein	lipid	vita A	vita E	vita K	Ca	iron	zinc	vita C	b1	b2	niacin	b6	b12	folate
TSNI	1-RAW 2-COOKED	units per 100 gms edible portion:	kcal	gms	gms	mcg RAE	mcg	mcg	mg	mg	mg	mg	mg	mg	mg	mg	mcg	mcg dfe
		TYPE,PREP FROM RECIPE																
821	1	VEGETABLE OIL,PALM KERNEL	862	0.0	100.0	0.00	3.81	24.70	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0
822	1	BUTTER,WITHOUT SALT	717	0.9	81.1	684.00	2.32	7.00	24	0.0	0.1	0.0	0.01	0.03	0.04	0.00	0.17	3
831	1	ALCOHOLIC BEV,BEER,REG	33	0.3	0.1	0.00	0.00	0.00	5	0.0	0.0	0.0	0.01	0.03	0.45	0.05	0.02	6
832	1	ALCOHOLIC BEV,WINE,TABLE,RED	72	0.2	0.0	0.00			8	0.4	0.1	0.0	0.01	0.03	0.08	0.03	0.01	2
833	1	CARBONATED BEV,ORANGE	48	0.0	0.0	0.00			5	0.1	0.1	0.0	0.00	0.00	0.00	0.00	0.00	0
834	1	ALCOHOLIC BEV,DISTILLED,ALL (GIN,RUM,VODKA,WHISKEY) 94 PROOF	275	0.0	0.0	0.00			0	0.0	0.0	0.0	0.01	0.00	0.01	0.00	0.00	0
835	1	BRANDY FROM SUGAR CANE	232	0.0	0.0	0.00	0.00	0.00	0	0.1	0.1	0.0	0.00	0.00	0.00	0.00	0.00	
837	1	OTHER TRADITIONAL ALCOHOLIC DRINK (FROM WASTE MAIZE)	25	0.2	0.0	0.00			0	0.3	0.0				0.40			
838	1	COCONUT H2O (LIQ FROM COCONUTS)	19	0.7	0.2	0.00	0.00	0.00	24	0.3	0.1	2.4	0.03	0.06	0.08	0.03	0.00	3
839	1	OTHER TYPE OF TRADITIONAL ALCOHOLIC DRINK (BEER, LOCAL)	25	0.2	0.0	0.00			0	0.3	0.0				0.40			
840	1	OTHER TRADITIONAL ALCOHOLIC DRINK (FROM KACHASU)	25	0.2	0.0	0.00			0	0.3	0.0				0.40			
849	1	LEMMON-ORANGE SQUASH (REPRESENTATIVE DRINK)	45	0.1	0.0	1.00	0.00	0.00	32	0.1	0.0	2.7	0.00	0.00	0.00	0.00	0.00	
851	1	COFFEE,INST,REG,PDR	241	12.2	0.5	0.00	0.00	1.90	141	4.4	0.4	0.0	0.01	0.07	28.17	0.03	0.00	0
851	2	COFFEE,INST,REG,PREP W/H2O	2	0.1	0.0	0.00	0.00	0.00	4	0.0	0.0	0.0	0.00	0.00	0.24	0.00	0.00	0
852	2	TEA,BREWED,PREP W/TAP H2O	1	0.0	0.0	0.00	0.00	0.00	0	0.0	0.0	0.0	0.00	0.01	0.00	0.00	0.00	5
861	1	SALT,TABLE	0	0.0	0.0	0.00	0.00	0.00	24	0.3	0.1	0.0	0.00	0.00	0.00	0.00	0.00	0
862	1	LEAVENING AGENTS,BAKING PDR,DOUBLE- ACTING,STRAIGHT PO4	51	0.1	0.0	0.00	0.00	0.00	7364	11.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0