



USDA Nutrient Data at Your Fingertips: Learn to Use National Resources in Your Practice

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DISCLOSURE

Robin Thomas

- Research Support
 - Collaborations with other government agencies
 - National Institutes of Health
 - Centers for Disease Control
 - Food and Drug Administration
 - Collaborations with food industry
- Other
 - AND Evidence Analysis Library, Advanced Technology in Food Production workgroup member, 2012-present



OBJECTIVES

- Describe different methods of obtaining food and nutrient data used in USDA nutrient databases.
- List at least three products or tools dietitians can use to aid their practice and keep themselves and their clients informed about nutrient composition of foods.
- Indicate a web-based resource for obtaining reliable dietary intake data for the U.S. population.

BELTSVILLE HUMAN NUTRITION RESEARCH CENTER (BHNRC)



- Nutrient Data Lab
- Food Surveys Research Group
- Food Composition and Methods Development Lab
- Food Components and Health Lab
- Diet, Genomics, and Immunology Lab



NDL'S MISSION

- To acquire, evaluate, compile and disseminate composition data on foods available in the United States
- To develop a database for Dietary Supplements



DIETARY SUPPLEMENT INGREDIENT DATABASE



- Develop reliable estimates and assess variability of nutrients and other bioactive components in dietary supplements
- Release and maintain on-line DS database
- Support improved dietary intake assessments in research
- Adult and child multivitamin estimates published in 2012 (<http://dsid.usda.nih.gov>)

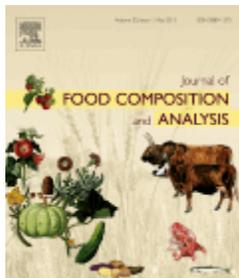
DIETARY SUPPLEMENT INGREDIENT DATABASE

- Current studies (DSID-3, 2014)
 - Omega-3 fatty acid DS
 - Over-the-counter prenatal multivitamins
- Future plans
 - Green tea DS
 - Flavonoid-containing DS
 - Calcium-containing DS

SOURCES OF DATA & INFORMATION FLOW

Analytical Projects
(NFNAP, FCMDL, Industry)

Food Industry
Data



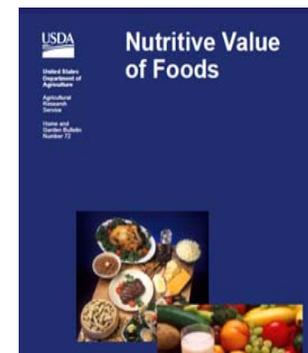
Databank System
Recipes Formulations
Algorithms Imputations

Nutrition Facts	
Serving Size 1 cup (228g)	
Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Potassium 700mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	

Food and Nutrient
Database for Dietary
Surveys (FNDDS)

**Standard
Reference
(SR)**

**Special Releases
(Flavonoids, Choline)**





DRIVING FACTORS FOR NUTRIENTS STUDIED

- IOM Dietary Reference Intakes
- Dietary Guidelines for Americans
- Scientific and medical communities
- Food policy and regulations
- Availability of validated analytical methods

DRIVING FACTORS IN FOOD SELECTION

- Key Foods
- Food industry
- Market share
- National survey respondents
- FDA
- Scientific community
- Ethnic foods
- Current trends



NATIONAL FOOD AND NUTRIENT ANALYSIS PROGRAM

- NFNAP began 1997, Interagency Agreement with NIH
- Interest in generation of original analytical data with variability estimates for foods
- Statistically valid nationally representative sampling
- Validated methods by qualified laboratories
- Comprehensive quality control and assurance

SAMPLING OF HISPANIC FOODS

Restaurant

- Empanadas
- Papusas
 - Cheese, pork, beans
- Arepa
- Bunuelos, sweet
- Tamale
 - Corn, pork
- Soups
 - Tripe, Black bean
- Chicken and rice
- Rice and beans
- Fried plantains



Retail

- Queso (cheese)
 - Fresco, blanco, seco
- Nance, frozen
- Naranjilla pulp, frozen
- Aji pepper
- Crackers
- Plantain chips
- Yucca chips
- Dulce de leche
- Horchata
- Breads
- Corn tostadas

AMERICAN INDIAN/ALASKA NATIVE

- Traditional/subsistence foods
- Data on multiple tribes
- Alaska Native foods
 - Fish, marine mammals, caribou, berries
- Southwest (e.g., Apache, Navajo, Hopi)
 - Fry bread, tennis bread, acorn stew, agave
 - Mutton stews, tortillas, corn/cornmeal dishes
- Pacific NW (e.g., Shoshone-Bannock)
 - Buffalo, elk, Steelhead trout, berries, roots
- Plains Indians – wild plants





INDUSTRY ANALYTICAL PROJECTS

-- examples

- Mushroom Council
- Produce for Better Health
- International Tree Nut Council
- National Cattlemen's Beef Association
- National Turkey Federation



DATA SUPPLIED BY FOOD INDUSTRY

- Food Specialists request data
- Manufacturer submits
 - Spreadsheets with data
 - Copies of original lab results, sampling methods, analytical methods
- Data calculations vs. rounded label values
- QC reviews

LABELS AND SCIENTIFIC LITERATURE

- Label values
 - Rounded
 - Calculations
 - "Zero"
- Scientific literature
 - Original research
 - Describe samples
 - Valid analytical methods

Nutrition Facts	
Serving Size 1 cup (236ml)	
Servings Per Container 1	
Amount Per Serving	
Calories 80	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Less than 5mg	0%
Sodium 120mg	5%
Total Carbohydrate 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
Protein 9g	17%

1164 J. Agric. Food Chem. 2007, 55, 1164-1169

JOURNAL OF
AGRICULTURAL AND
FOOD CHEMISTRY

Fatty Acid Profiles, Tocopherol Contents, and Antioxidant Activities of Heartnut (*Juglans ailanthifolia* Var. *cordiformis*) and Persian Walnut (*Juglans regia* L.)

LI LI,¹ RONG TSAO,^{*} RAYMOND YANG, JOHN K. G. KRAMER, AND MARTA HERNANDEZ

Food Research Program, Agriculture and Agri-Food Canada, 93 Stone Road West, Guelph, Ontario N1G 5C9, Canada

The fatty acid and tocopherol compositions of three heartnut (*Juglans ailanthifolia* var. *cordiformis*) varieties (Imshu, Campbell CW1, and Campbell CW3) were examined and compared with those of two Persian walnut (*Juglans regia* L.) varieties (Tromba and I like). The major fatty acids found in heartnuts and walnuts were identified by gas chromatography as linoleic (18:2n-6), α -linolenic (18:3n-3), oleic (18:1n-9), palmitic (16:0), and stearic acid (18:0). Polyunsaturated fatty acids were the main group of fatty acids found in both heartnut and walnut, ranging from 73.07 to 80.98%, and were significantly higher in heartnut than in Persian walnuts ($P < 0.001$). In addition, heartnuts had significantly higher levels of 18:2n-6 and lower levels of 18:3n-3 compared to the Persian walnuts. γ -Tocopherol was the main tocopherol homologue present in both types of nuts, followed by δ - and α -tocopherol. The highest concentration of γ -tocopherol was found in Combe Persian walnut at 287.87 μ g/g, followed by Lake Persian walnut and Imshu, Campbell CW1, and CW3 heartnut at 205.45, 187.33, 161.84, and 126.45 μ g/g, respectively. Tocopherols, particularly the γ -tocopherol, were found to contribute the most to the strong total antioxidant activities of both walnut and heartnut oils using either the free radical 2,2-diphenyl-1-picrylhydrazyl assay or the photochemiluminescence method.

KEYWORDS: Walnut; heartnut; fatty acid; tocopherol; antioxidant activities; *Juglans ailanthifolia* var. *cordiformis*; *Juglans regia* L.

INTRODUCTION

Walnuts (*Juglans regia* L.) are a good source of essential fatty acids and tocopherols that contribute to reduced risk of coronary heart disease (CHD) (1). The major fatty acids found in walnut are linoleic (18:2n-6), α -linolenic (18:3n-3), oleic (18:1n-9), palmitic (16:0), and stearic (18:0) acid (1-6). γ -Tocopherol has been identified as the major vitamin E homologue in walnut (1, 6-9). The oil content and the fatty acid and tocopherol compositions have been found to vary significantly among different walnut cultivars (2-8).

The oxidation of lipids in food is responsible for the formation of off-flavors and undesirable chemical compounds that may be detrimental to health (9, 10). Tocopherols as antioxidants can stabilize fatty acids in oil (6, 11-14) and thus prevent the rancidity of oils during storage (15-17). α -Tocopherol has been found to be more active as an antioxidant than other vitamin E homologues in vitro (18, 19). However, in some model systems γ -tocopherol has been found to have a higher antioxidant capacity than α -tocopherol (11, 20, 21). The antioxidant capacity

of oils from different food sources including walnut has been evaluated using the 2,2-diphenyl-1-picrylhydrazyl radical (DP-FH) induced free radical method (22). For walnut oils, the antioxidant capacity has been attributed to the presence of tocopherols (6, 22), and different homologues of vitamin E were shown to have different degrees of antioxidative efficiency (11, 18-22).

The oils extracted from the Persian walnut (*Juglans regia* L.) have been widely studied for their fatty acid profiles, their tocopherol content, and their oxidative stability (1-6). Recently, heartnut (*Juglans ailanthifolia* var. *cordiformis*), a naturally occurring genetic variety of the more common Japanese walnut, has become very popular among consumers and nut tree growers in southern Ontario, Canada. Heartnuts have a natural heart shape and are generally harder, a characteristic that gives the heartnut a great commercial potential in the Great Lakes region in Ontario. Information on the phytochemical composition of the heartnut is scarce. We have previously reported the phenolic content and antioxidant activity of heartnut (23). In this study, we report for the first time on the fatty acid profiles and tocopherol contents of three heartnut varieties using gas chromatography (GC) and high-performance liquid chromatography (HPLC), respectively. The antioxidant activities of the

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10.1021/JF0633274.CC: 037.00. Published 2007 by the American Chemical Society.

IMPUTATIONS AND CALCULATIONS

- Imputations
 - Assumed zeros
 - Based on similar food
- Arithmetic calculations (carbohydrate by difference)
- Calculations based on scientific principles
- Recipes and formulations

Select the imputing method

Similar Food

Drained Solids

Concentration Adjustment

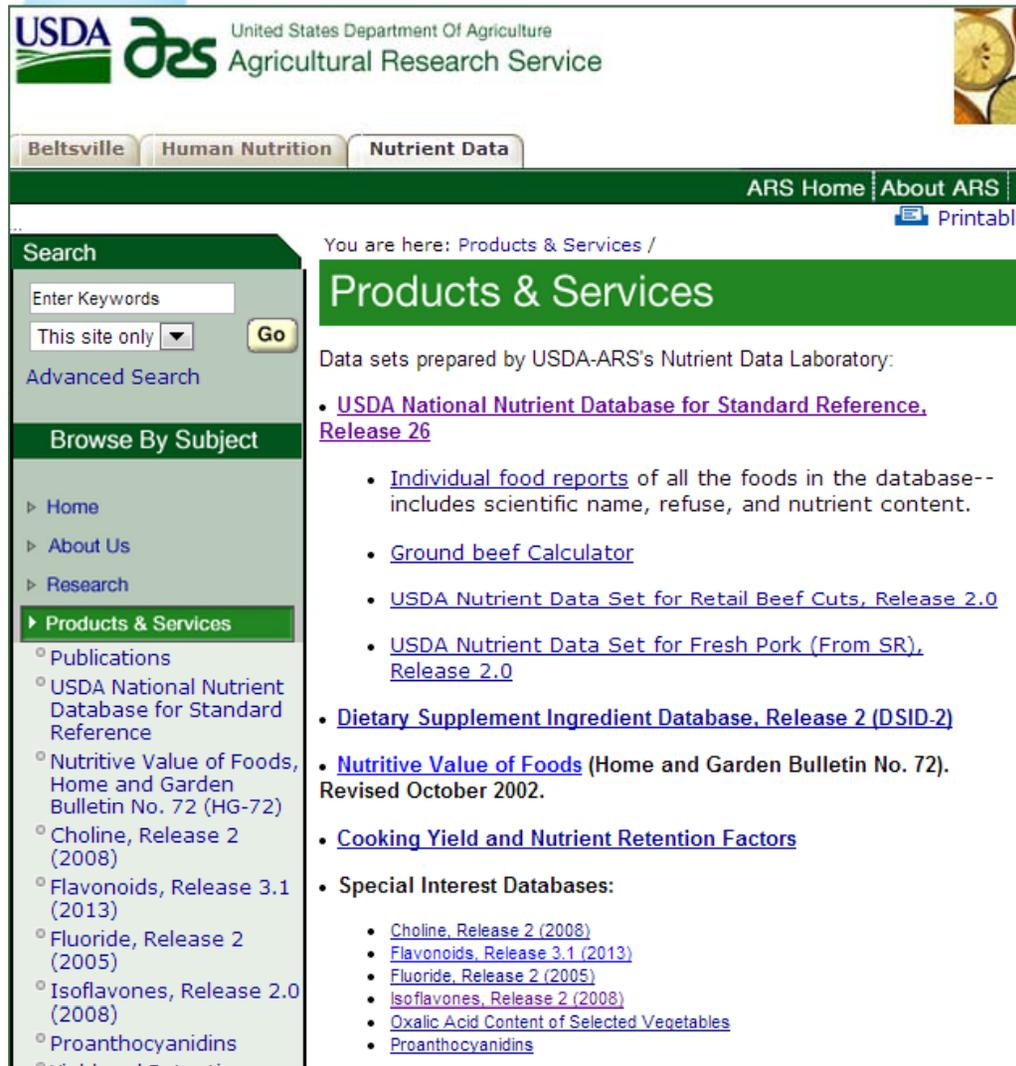
Amino Acid

Proximates

Food Category

Normalize to Total Vitamin A Value

NDL PRODUCTS



USDA United States Department Of Agriculture
ARS Agricultural Research Service

Beltsville Human Nutrition Nutrient Data

ARS Home About ARS H
Printable

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Products & Services

Data sets prepared by USDA-ARS's Nutrient Data Laboratory:

- [USDA National Nutrient Database for Standard Reference, Release 26](#)
 - [Individual food reports](#) of all the foods in the database-- includes scientific name, refuse, and nutrient content.
 - [Ground beef Calculator](#)
 - [USDA Nutrient Data Set for Retail Beef Cuts, Release 2.0](#)
 - [USDA Nutrient Data Set for Fresh Pork \(From SR\), Release 2.0](#)
- [Dietary Supplement Ingredient Database, Release 2 \(DSID-2\)](#)
- [Nutritive Value of Foods](#) (Home and Garden Bulletin No. 72). Revised October 2002.
- [Cooking Yield and Nutrient Retention Factors](#)
- **Special Interest Databases:**
 - [Choline, Release 2 \(2008\)](#)
 - [Flavonoids, Release 3.1 \(2013\)](#)
 - [Fluoride, Release 2 \(2005\)](#)
 - [Isoflavones, Release 2 \(2008\)](#)
 - [Oxalic Acid Content of Selected Vegetables](#)
 - [Proanthocyanidins](#)

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 - Nutritive Value of Foods, Home and Garden Bulletin No. 72 (HG-72)
 - Choline, Release 2 (2008)
 - Flavonoids, Release 3.1 (2013)
 - Fluoride, Release 2 (2005)
 - Isoflavones, Release 2.0 (2008)
 - Proanthocyanidins
 - Yield and Retention

USDA NATIONAL NUTRIENT DATABASE FOR STANDARD REFERENCE (SR)

- Agricultural commodities, formulated foods
- Brand name products and generic estimates
- Approx. 8500 foods, up to 150 components
- Data statistics, sources
- Household weights and measures, % refuse



SR ANNUAL RELEASES

- New foods are added
- Foods no longer on the market are removed
- Data for some foods are revised
- Units for reporting nutrients are updated
- Nutrients are added or expanded



TRADITIONAL COMPONENTS

- Proximate components
- Carbohydrate fractions
 - Individual and total sugars
 - Total starch
 - Dietary fiber
- Vitamins
- Minerals
- Amino acids
- Fatty acids

COMPONENTS OF SPECIAL INTEREST

- Isoflavones*
- Flavonoids/Proanthocyanidins*
- Choline/Sphingolipids*
- Fluoride*
- Carotenoids
- Trans-fatty acids
- N-3 fatty acids
- Phytosterols
- Vitamin D

* Special Interest Databases



CURRENT RESEARCH FOCUS

- Brand name products; ethnic foods
- Commercially processed/prepared and restaurant foods
- Current trends (e.g., Greek yogurt, energy drinks)
- USDA, FDA, CDC collaboration – monitoring sodium
- Complete fatty acid profiles (i.e., *trans* fatty acids and omega-3s) in commercial foods
- Meat studies -- wild game, veal, vitamin D and 25 (OH) D
- Sulfur compounds – glucosinolates, allium

Increase in Number of Brand Name Items

	SR25			SR26		
Food Group	# Brand Name items	Per-cent	Total in SR	# Brand Name items	Per-cent	Total in SR
Beverages	50	18%	279	74	24%	312
Meals, entrees, sides	25	38%	66	47	44%	108
Restaurant foods	24	44%	55	40	49%	82

HOW ARE USDA NUTRIENT DATA USED?

- Provide the foundation for most other databases
 - National surveys – WWEIA/NHANES
 - Therapeutic, clinical, and research databases, studies
 - Food product development, labeling, and regulation
 - Commercial publications and software
- Public policy
 - Dietary Reference Intakes (choline, vitamin D)
 - CNPP develop nutrition guidance and education
 - Food assistance programs
- Consumers, students, health professionals

See Ahuja JKC et al. J Nutr Suppl 2013

SR ONLINE SEARCH APPLICATIONS

<http://ndb.nal.usda.gov>





FOODS SEARCH

- <http://ndb.nal.usda.gov/ndb/search/list>
- Food categories and search terms
- Weights/measures
- Basic report
- Full report
- Statistics report
- Incorporated USDA Special Interest Databases:
Isoflavone, Flavonoid and Proanthocyanidin



Agricultural Research Service
United States Department of Agriculture

National Nutrient Database for Standard Reference
 Release 26

- [NDL Home](#)
- [Food Search](#)
- [Nutrients List](#)
- [Ground Beef Calculator](#)
- [SR26 Documentation](#)
- [Help](#)

FOOD GROUP

- American Indian/Alaska Native Foods** (165)
- Baby Foods** (362)
- Baked Products** (807)
- Beef Products** (864)
- Beverages** (312)
- Breakfast Cereals** (354)
- Cereal Grains and Pasta** (182)
- Dairy and Egg Products** (258)
- Fast Foods** (388)
- Fats and Oils** (219)
- Finfish and Shellfish Products** (267)
- Fruits and Fruit Juices** (335)
- Lamb, Veal, and Game Products** (353)
- Legumes and Legume Products** (385)
- Meals, Entrees, and Side Dishes** (108)
- Nut and Seed Products** (131)
- Pork Products** (337)
- Poultry Products** (389)
- Restaurant Foods** (82)
- Sausages and Luncheon Meats** (243)
- Snacks** (172)
- Soups, Sauces, and Gravies** (511)
- Spices and Herbs** (64)
- Sweets** (347)
- Vegetables and Vegetable Products** (828)

Enter one or more terms and click 'Go' for a new search

8,463 foods found: Click on a food name to view details

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- ..
- 339
- Next

NDB No.▲	Description ▲	Food Group ▲
01001	Butter, salted	Dairy and Egg Products
01002	Butter, whipped, with salt	Dairy and Egg Products
01003	Butter oil, anhydrous	Dairy and Egg Products
01004	Cheese, blue	Dairy and Egg Products
01005	Cheese, brick	Dairy and Egg Products
01006	Cheese, brie	Dairy and Egg Products
01007	Cheese, camembert	Dairy and Egg Products
01008	Cheese, caraway	Dairy and Egg Products
01009	Cheese, cheddar	Dairy and Egg Products
01010	Cheese, cheshire	Dairy and Egg Products
01011	Cheese, colby	Dairy and Egg Products
01012	Cheese, cottage, creamed, large or small curd	Dairy and Egg Products
01013	Cheese, cottage, creamed, with fruit	Dairy and Egg Products
01014	Cheese, cottage, nonfat, uncreamd, dry, large or small curd	Dairy and Egg Products

FOOD GROUP

- American Indian/Alaska Native Foods (1)
- Baby Foods (31)
- Baked Products (14)
- Beverages (2)
- Breakfast Cereals (10)
- Fast Foods (5)
- Fruits and Fruit Juices (30)**
- Sweets (3)

Enter one or more terms and click 'Go' for a new search

96 foods found: Click on a food name to view details

1 2 3 4 Next

NDB No.	Description	Food Group
03166	Babyfood, juice, apple	Baby Foods
09312	Rose-apples, raw	Fruits and Fruit Ju
18240	Croissants, apple	Baked Products
18354	Strudel, apple	Baked Products
19294	Fruit butters, apple	Sweets
21342	McDONALD'S, Apple Dippers	Fast Foods
03115	Babyfood, apples, dices, toddler	Baby Foods
03167	Babyfood, apple-banana juice	Baby Foods
03168	Babyfood, juice, apple and peach	Baby Foods
03169	Babyfood, apple-cranberry juice	Baby Foods
03170	Babyfood, juice, apple and plum	Baby Foods
03171	Babyfood, juice, apple and prune	Baby Foods

Basic Report: 09003, Apples, raw, with skin ^a ^b

[Return to Search Results](#)
[Full Report \(All Nutrients\)](#)
[Statistics Report](#)
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Nutrient values and weights are for edible portion

<input type="button" value="Apply Changes"/>									
Nutrient	Unit	<input type="text" value="1"/> Value per 100 g	<input type="text" value="1.0"/> cup, quartered or chopped 125g	<input type="text" value="1.0"/> cup slices 109g	<input type="text" value="1.0"/> large (3-1/4" dia) 223g	<input type="text" value="1.0"/> medium (3" dia) 182g	<input type="text" value="1.0"/> small (2-3/4" dia) 149g	<input type="text" value="1.0"/> extra small (2-1/2" dia) 101g	<input type="text" value="1.0"/> NLEA serving 242g
Proximates									
Water	g	85.56	106.95	93.26	190.80	155.72	127.48	86.42	207.06
Energy	kcal	52	65	57	116	95	77	53	126
Protein	g	0.26	0.32	0.28	0.58	0.47	0.39	0.26	0.63
Total lipid (fat)	g	0.17	0.21	0.19	0.38	0.31	0.25	0.17	0.41
Carbohydrate, by difference	g	13.81	17.26	15.05	30.80	25.13	20.58	13.95	33.42
Fiber, total dietary	g	2.4	3.0	2.6	5.4	4.4	3.6	2.4	5.8
Sugars, total	g	10.39	12.99	11.33	23.17	18.91	15.48	10.49	25.14
Minerals									
Calcium, Ca	mg	6	8	7	13	11	9	6	15

Statistics Report: 09003, Apples, raw, with skin ^{a b}

[Return to Search Results](#)
[Basic Report](#)
[Full Report \(All Nutrients\)](#)
[Download \(CSV\)](#)
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Nutrient values and weights are for edible portion

Nutrient	Unit	Value (100g)	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Proximates													
Water ^{1 2 3 4}	g	85.56	38	0.241	82.39	87.52	3.0	84.775	86.346	4	Analytical or derived from analytical	--	06/2003
Energy	kcal	52	0	--	--	--	--	--	--	--	Calculated or imputed	--	05/2007
Energy	kJ	218	0	--	--	--	--	--	--	--	Calculated or imputed	--	05/2007
Protein ^{1 2 4}	g	0.26	29	0.019	0.17	0.57	3.0	0.209	0.32	3	Analytical or derived from analytical	--	06/2003
Total lipid (fat) ^{1 2 3 4}	g	0.17	35	0.011	0.05	0.31	3.0	0.137	0.212	4	Analytical or derived from analytical	--	06/2003
Ash ^{1 2 4}	g	0.19	29	0.018	0.07	0.48	4.0	0.136	0.245	3	Analytical or derived from analytical	--	06/2003
Carbohydrate, by difference	g	13.81	0	--	--	--	--	--	--	--	Calculated or imputed	--	05/2007
Fiber, total dietary ^{1 2 4}	g	2.4	29	0.276	1.4	3.5	4.0	1.584	3.118	3	Analytical or derived from analytical	--	06/2003
Sugars, total ^{1 4}	g	10.39	25	0.112	8.77	12.01	5.0	10.099	10.68	2	Analytical or derived from analytical	--	06/2003

Flavonoids

Anthocyanidins

Cyanidin ^{9 10 11} 16 17 19	mg	1.6	95	0.28	2.0	1.7	3.5	2.9
Petunidin ⁹	mg	0.0	20	0	0.0	0.0	0.0	0.0
Delphinidin ^{9 10}	mg	0.0	24	0	0.0	0.0	0.0	0.0
Malvidin ⁹	mg	0.0	20	0	0.0	0.0	0.0	0.0
Pelargonidin ⁹ 10	mg	0.0	24	0	0.0	0.0	0.0	0.0
Peonidin ^{9 11}	mg	0.0	22	0.01	0.0	0.0	0.0	0.0

Flavan-3-ols

Flavanones

Flavones

Flavonols

Isoflavones



Sources of Data

¹Nutrient Data Laboratory, ARS, USDA National Food and Nutrient Analysis Program Wave 5b , 2000 Beltsville MD

²Produce Marketing Association (PMA) Nutrient Content of Apple , 1990

³Nutrient Data Laboratory, ARS, USDA NDL Report Vitamin E 1997 , 1997 Beltsville MD

⁴Nutrient Data Laboratory. ARS. USDA National Food and Nutrient Analysis Program Wave 5i . 2001 Beltsville MD

NUTRIENT LISTS – NEW ONLINE SEARCH

- <http://ndb.nal.usda.gov/ndb/nutrients/index>
- Replaces pdf reports
- Available for all nutrients in SR
- Choose up to three nutrients
- Limit to 1 or more specific food groups
- Sort by nutrient value or alphabetical



***First Nutrient:** Protein (g) ▼

Second Nutrient: Potassium, K (mg) ▼

Third Nutrient: Select nutrient ▼

Food Subset:  All Foods ▼

Use CTRL+Click to select more than one food group

Food Groups: Lamb, Veal, and Game Products
Legumes and Legume Products
Meals, Entrees, and Side Dishes
Nut and Seed Products ▲
▼

Sort by: Food Name
Nutrient Content

Measure by: Household ▼



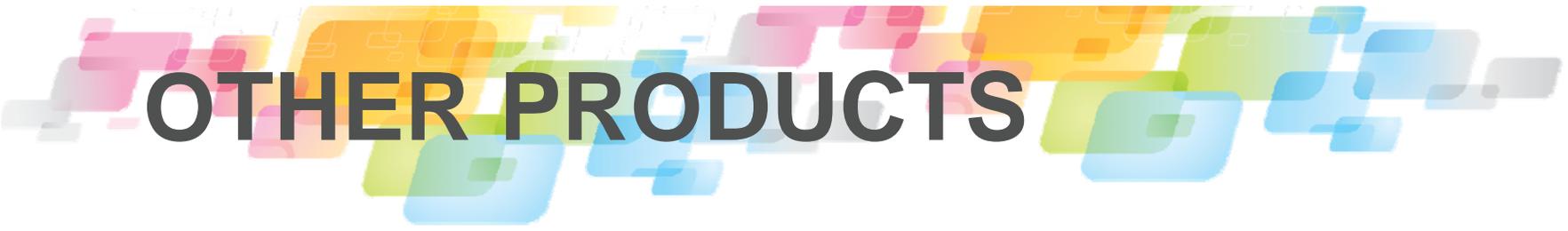
NDB_No	Description	Weight (g)	Measure	Potassium, K (mg) Per Measure	Protein (g) Per Measure
11432	Radishes, oriental, dried	116.0	1.0 cup	4053	9.16
11382	Potatoes, mashed, dehydrated, granules with milk, dry form	200.0	1.0 cup	3696	21.80
16049	Beans, white, mature seeds, raw	202.0	1.0 cup	3626	47.19
16108	Soybeans, mature seeds, raw	186.0	1.0 cup	3342	67.87
16045	Beans, small white, mature seeds, raw	215.0	1.0 cup	3315	45.39
16040	Beans, pink, mature seeds, raw	210.0	1.0 cup	3074	44.02
16071	Lima beans, large, mature seeds, raw	178.0	1.0 cup	3069	38.20
16119	Soy meal, defatted, raw	122.0	1.0 cup	3038	54.84
16419	Soy meal, defatted, raw, crude protein basis (N x 6.25)	122.0	1.0 cup	3038	60.02

SR IN MS ACCESS RELATIONAL DATABASE FORMAT

- Create more customized reports
- Download from NDL web site
- Canned queries to get started

Queries	
	NUT_DATA_Crosstab
	Food Item Query by name
	Food Item Query by NDB Number
	Food Item Query by Nutrient
	Food Item Query with Common Measures
	Nutrient Query with Common Measures

Tables	
	DATA_SRC
	DATSRCLN
	DERIV_CD
	FD_GROUP
	FOOD_DES
	FOOTNOTE
	LANGDESC
	LANGUAL
	NUT_DATA
	NUTR_DEF
	SRC_CD
	WEIGHT



OTHER PRODUCTS

- Special Interest Databases
 - Flavonoids
 - Isoflavones
 - Choline
 - Fluoride
- Yields and Retentions
 - Cooking yields for meat and poultry (2012)
 - Nutrient Retention Factors, Release 6 (2007)



SUMMARY

- USDA's Standard Reference database comprises mostly analytical and industry data; up to 150 components in about 8,500 foods
- NDL provides nutrient data for intake estimates, food policy, nutrition guidance
- Current focus on increased brand names, processed/prepared and restaurant foods, monitoring sodium levels
- SR search applications easily accessible online, new features
- Other products available to assist nutrition professionals



PRACTICE APPLICATIONS

Attendees will be able to:

- Readily access and interpret food composition data to assist clients
- Create custom reports based on specific nutrient(s) for subsets of food groups
- Locate the various food composition products, [articles](#) and details on the NDL web site