

**Full Report (All Nutrients) 09226, Papayas, raw [c](#)**

**Report Date: July 15, 2019 20:16 EDT**

Nutrient values and weights are for edible portion.

Food Group : Fruits and Fruit Juices

**Carbohydrate Factor: 3.6 Fat Factor: 8.37 Protein Factor:3.36 Nitrogen to Protein Conversion Factor:6.25**

**Refuse:38% Refuse Description: Seeds and skin**

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 cup 1" pieces 145g	1 cup, mashed 230g	1 fruit, small 157g	1 fruit, large 781g
<b>Proximates</b>								
Water <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a>	g	88.06	72	1.090	127.69	202.54	138.25	687.75
Energy	kcal	43	--	--	62	99	68	336
Energy	kJ	179	--	--	260	412	281	1398
Protein <a href="#">1</a> <a href="#">2</a>	g	0.47	9	0.090	0.68	1.08	0.74	3.67
Total lipid (fat) <a href="#">1</a> <a href="#">2</a>	g	0.26	9	0.140	0.38	0.60	0.41	2.03
Ash <a href="#">1</a> <a href="#">2</a>	g	0.39	9	0.080	0.57	0.90	0.61	3.05
Carbohydrate, by difference	g	10.82	--	--	15.69	24.89	16.99	84.50
Fiber, total dietary <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a>	g	1.7	9	0.100	2.5	3.9	2.7	13.3
Sugars, total <a href="#">2</a>	g	7.82	3	1.400	11.34	17.99	12.28	61.07
Sucrose <a href="#">2</a>	g	0.00	3	0.000	0.00	0.00	0.00	0.00
Glucose (dextrose) <a href="#">2</a>	g	4.09	3	0.680	5.93	9.41	6.42	31.94
Fructose <a href="#">2</a>	g	3.73	3	0.720	5.41	8.58	5.86	29.13
Lactose <a href="#">2</a>	g	0.00	3	0.000	0.00	0.00	0.00	0.00
Maltose <a href="#">2</a>	g	0.00	3	0.000	0.00	0.00	0.00	0.00
Galactose <a href="#">2</a>	g	0.00	3	0.000	0.00	0.00	0.00	0.00
Starch <a href="#">2</a>	g	0.00	1	--	0.00	0.00	0.00	0.00
<b>Minerals</b>								
Calcium, Ca <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	20	70	2.000	29	46	31	156
Iron, Fe <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	0.25	70	0.060	0.36	0.57	0.39	1.95
Magnesium, Mg <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	21	70	1.000	30	48	33	164

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 cup 1" pieces 145g	1 cup, mashed 230g	1 fruit, small 157g	1 fruit, large 781g
Phosphorus, P <a href="#">1</a> <a href="#">2</a> <a href="#">5</a>	mg	10	69	2.000	14	23	16	78
Potassium, K <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	182	70	11.000	264	419	286	1421
Sodium, Na <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	8	70	2.000	12	18	13	62
Zinc, Zn <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	0.08	70	0.008	0.12	0.18	0.13	0.62
Copper, Cu <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	0.045	70	0.012	0.065	0.103	0.071	0.351
Manganese, Mn <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">7</a>	mg	0.040	70	0.016	0.058	0.092	0.063	0.312
Selenium, Se	µg	0.6	--	--	0.9	1.4	0.9	4.7
<b>Vitamins</b>								
Vitamin C, total ascorbic acid <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">13</a>	mg	60.9	73	3.800	88.3	140.1	95.6	475.6
Thiamin <a href="#">1</a> <a href="#">2</a>	mg	0.023	9	0.006	0.033	0.053	0.036	0.180
Riboflavin <a href="#">1</a> <a href="#">2</a>	mg	0.027	9	0.005	0.039	0.062	0.042	0.211
Niacin <a href="#">1</a> <a href="#">2</a>	mg	0.357	9	0.027	0.518	0.821	0.560	2.788
Pantothenic acid <a href="#">1</a> <a href="#">2</a>	mg	0.191	9	0.052	0.277	0.439	0.300	1.492
Vitamin B-6 <a href="#">1</a> <a href="#">2</a>	mg	0.038	9	0.012	0.055	0.087	0.060	0.297
Folate, total <a href="#">a</a> <a href="#">1</a> <a href="#">2</a>	µg	37	8	1.000	54	85	58	289
Folic acid	µg	0	--	--	0	0	0	0
Folate, food	µg	37	8	1.000	54	85	58	289
Folate, DFE	µg	37	--	--	54	85	58	289
Choline, total	mg	6.1	--	--	8.8	14.0	9.6	47.6
Vitamin B-12	µg	0.00	--	--	0.00	0.00	0.00	0.00
Vitamin B-12, added	µg	0.00	--	--	0.00	0.00	0.00	0.00
Vitamin A, RAE <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a>	µg	47	--	--	68	108	74	367
Retinol	µg	0	--	--	0	0	0	0
Carotene, beta <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">6</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a>	µg	274	76	122.000	397	630	430	2140
Carotene, alpha <a href="#">2</a> <a href="#">5</a> <a href="#">6</a> <a href="#">10</a>	µg	2	67	2.000	3	5	3	16
Cryptoxanthin, beta <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a>	µg	589	75	160.000	854	1355	925	4600
Vitamin A, IU <a href="#">1</a> <a href="#">2</a> <a href="#">5</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a>	IU	950	--	--	1378	2185	1492	7420
Lycopene <a href="#">b</a> <a href="#">2</a> <a href="#">5</a> <a href="#">6</a>	µg	1828	22	206.000	2651	4204	2870	14277
Lutein + zeaxanthin <a href="#">2</a> <a href="#">5</a> <a href="#">10</a> <a href="#">12</a>	µg	89	67	31.000	129	205	140	695
Vitamin E (alpha-tocopherol) <a href="#">2</a> <a href="#">11</a>	mg	0.30	5	0.090	0.43	0.69	0.47	2.34
Vitamin E, added	mg	0.00	--	--	0.00	0.00	0.00	0.00
Tocopherol, beta <a href="#">2</a> <a href="#">11</a>	mg	0.02	5	0.010	0.03	0.05	0.03	0.16

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 cup 1" pieces 145g	1 cup, mashed 230g	1 fruit, small 157g	1 fruit, large 781g
Tocopherol, gamma <a href="#">2 11</a>	mg	0.09	5	0.009	0.13	0.21	0.14	0.70
Tocopherol, delta <a href="#">2 11</a>	mg	0.01	5	0.010	0.01	0.02	0.02	0.08
Tocotrienol, alpha <a href="#">2 11</a>	mg	0.00	5	0.003	0.00	0.00	0.00	0.00
Tocotrienol, beta <a href="#">2 11</a>	mg	0.07	5	0.060	0.10	0.16	0.11	0.55
Tocotrienol, gamma <a href="#">2 11</a>	mg	0.01	5	0.005	0.01	0.02	0.02	0.08
Tocotrienol, delta <a href="#">2 11</a>	mg	0.00	5	0.000	0.00	0.00	0.00	0.00
Vitamin D (D2 + D3)	µg	0.0	--	--	0.0	0.0	0.0	0.0
Vitamin D	IU	0	--	--	0	0	0	0
Vitamin K (phylloquinone)	µg	2.6	--	--	3.8	6.0	4.1	20.3
<b>Lipids</b>								
Fatty acids, total saturated	g	0.081	--	--	0.117	0.186	0.127	0.633
4:0	g	0.000	--	--	0.000	0.000	0.000	0.000
6:0	g	0.000	--	--	0.000	0.000	0.000	0.000
8:0	g	0.000	--	--	0.000	0.000	0.000	0.000
10:0	g	0.000	--	--	0.000	0.000	0.000	0.000
12:0	g	0.002	2	--	0.003	0.005	0.003	0.016
14:0	g	0.013	3	--	0.019	0.030	0.020	0.102
16:0	g	0.060	3	--	0.087	0.138	0.094	0.469
18:0	g	0.004	3	--	0.006	0.009	0.006	0.031
Fatty acids, total monounsaturated	g	0.072	--	--	0.104	0.166	0.113	0.562
16:1 undifferentiated	g	0.038	3	--	0.055	0.087	0.060	0.297
18:1 undifferentiated	g	0.034	3	--	0.049	0.078	0.053	0.266
20:1	g	0.000	--	--	0.000	0.000	0.000	0.000
22:1 undifferentiated	g	0.000	--	--	0.000	0.000	0.000	0.000
Fatty acids, total polyunsaturated	g	0.058	--	--	0.084	0.133	0.091	0.453
18:2 undifferentiated	g	0.011	3	--	0.016	0.025	0.017	0.086
18:3 undifferentiated	g	0.047	3	--	0.068	0.108	0.074	0.367
18:4	g	0.000	--	--	0.000	0.000	0.000	0.000
20:4 undifferentiated	g	0.000	--	--	0.000	0.000	0.000	0.000
20:5 n-3 (EPA)	g	0.000	--	--	0.000	0.000	0.000	0.000
22:5 n-3 (DPA)	g	0.000	--	--	0.000	0.000	0.000	0.000
22:6 n-3 (DHA)	g	0.000	--	--	0.000	0.000	0.000	0.000
Fatty acids, total trans	g	0.000	--	--	0.000	0.000	0.000	0.000

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 cup 1" pieces 145g	1 cup, mashed 230g	1 fruit, small 157g	1 fruit, large 781g
Cholesterol	mg	0	--	--	0	0	0	0
<b>Amino Acids</b>								
Tryptophan	g	0.008	6	--	0.012	0.018	0.013	0.062
Threonine	g	0.011	1	--	0.016	0.025	0.017	0.086
Isoleucine	g	0.008	1	--	0.012	0.018	0.013	0.062
Leucine	g	0.016	1	--	0.023	0.037	0.025	0.125
Lysine	g	0.025	7	--	0.036	0.058	0.039	0.195
Methionine	g	0.002	5	--	0.003	0.005	0.003	0.016
Phenylalanine	g	0.009	1	--	0.013	0.021	0.014	0.070
Tyrosine	g	0.005	1	--	0.007	0.012	0.008	0.039
Valine	g	0.010	1	--	0.014	0.023	0.016	0.078
Arginine	g	0.010	1	--	0.014	0.023	0.016	0.078
Histidine	g	0.005	1	--	0.007	0.012	0.008	0.039
Alanine	g	0.014	1	--	0.020	0.032	0.022	0.109
Aspartic acid	g	0.049	1	--	0.071	0.113	0.077	0.383
Glutamic acid	g	0.033	1	--	0.048	0.076	0.052	0.258
Glycine	g	0.018	1	--	0.026	0.041	0.028	0.141
Proline	g	0.010	1	--	0.014	0.023	0.016	0.078
Serine	g	0.015	1	--	0.022	0.034	0.024	0.117
<b>Other</b>								
Alcohol, ethyl	g	0.0	--	--	0.0	0.0	0.0	0.0
Caffeine	mg	0	--	--	0	0	0	0
Theobromine	mg	0	--	--	0	0	0	0
<b>Flavonoids</b>								
Flavones								
Apigenin <a href="#">15</a>	mg	0.0	4	0	0.0	0.0	0.0	0.1
Luteolin <a href="#">15</a>	mg	0.0	4	0	0.0	0.0	0.0	0.2
Flavonols								
Kaempferol <a href="#">15</a> <a href="#">16</a>	mg	0.0	5	0	0.0	0.0	0.0	0.1
Myricetin <a href="#">14</a> <a href="#">15</a> <a href="#">16</a>	mg	0.0	5	0.01	0.0	0.0	0.0	0.2
Quercetin <a href="#">14</a> <a href="#">15</a> <a href="#">16</a>	mg	0.0	5	0	0.0	0.0	0.0	0.0
Isoflavones								
Daidzein <a href="#">17</a>	mg	0.00	1	--	0.00	0.00	0.00	0.00

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 cup 1" pieces 145g	1 cup, mashed 230g	1 fruit, small 157g	1 fruit, large 781g
Genistein <a href="#">17</a>	mg	0.00	1	--	0.00	0.00	0.00	0.00
Total isoflavones <a href="#">17</a>	mg	0.00	1	--	0.00	0.00	0.00	0.00

**Sources of Data**

- <sup>1</sup>Produce Marketing Association (PMA) **Nutrient Content of Papaya**, 1984
- <sup>2</sup>Nutrient Data Laboratory, ARS, **USDA National Food and Nutrient Analysis Program Wave 12i**, 2008 Beltsville MD
- <sup>3</sup>N Vollendorf, J Marlett **Comparison of Two Methods of Fiber Analysis of 58 Foods**, 1993 Journal of Food Composition and Analysis 6 pp.203-214
- <sup>4</sup>K. Mahattanatawee, J.A. Manthey, G. Luzio, S. T. Talcott, K. Goodner et al **Total antioxidant activity and fiber content of select Florida-grown tropical fruits**, 2006 Journal of Agricultural and Food Chemistry 54 pp.7355-7363
- <sup>5</sup>M.M. Wall **Ascorbic acid, vitamin A, & mineral composition of banana & papaya cultivars grown in Hawaii**, 2006 Journal of Food Composition and Analysis 19 pp.434-445
- <sup>6</sup>J. Lako, V.C. Trenerry, M. Wahlqvist, N. Wattanapenpaiboon, S. Sotheeswaran, R. Premier **Phytochemical flavonols, carotenoids and the antioxidant properties of a wide selection of Fijian fruit, vegetables and other readily available foods**, 2007 Food Chemistry 101 pp.1727-1741
- <sup>7</sup>N.J. Miller-Ihli **Atomic absorption and atomic emission spectrometry for the determination of the trace element content of selected fruits consumed in the United States**, 1996 Journal of Food Composition and Analysis 9 4 pp.301-311
- <sup>8</sup>T Philip, T S Chen **Quantitative analyses of major carotenoid fatty acid esters in fruits by liquid chromatography: Persimmon and Papaya.**, 1988 J. Food Science 53 6 pp.1720-1722
- <sup>9</sup>T Philip, T S Chen **Development of a method for the quantitative estimation of provitamin A carotenoids in some fruits.**, 1988 J. Food Science 53 pp.1703-1707
- <sup>10</sup>National Institutes of Health (NIH) **Carotenoid analyses of U.S. foods, Food Composition Laboratory**, 1997
- <sup>11</sup>A.A. Franke, Suzanne Murphy, R. Lacey, L.J. Custer **Tocopherol and tocotrienol levels of foods consumed in Hawaii**, 2007 Journal of Agricultural and Food Chemistry 55 pp.769-778
- <sup>12</sup>J.M. Humphries, F Khachik **Distribution of lutein, zeaxanthin, & related geometrical isomers in fruit, vegetables, wheat, & pasta products**, 2003 Journal of Agricultural and Food Chemistry 51 pp.1322-1327
- <sup>13</sup>A.A. Franke, L.J. Custer, Christi Arakaki, Suzanne Murphy **Vitamin c and flavonoid levels of fruits and vegetables consumed in Hawaii.**, 2004 Journal of Food Composition and Analysis 17 pp.1-35

<sup>14</sup>Ocern Spray **Personal communications**, 2017

<sup>15</sup>Franke, A.A., Custer, L.J., Arakaki, C., and Murphy, S.P. **Vitamin C and flavonoid levels of fruits and vegetables consumed in Hawaii.**, 2004 J. Food Comp. Anal. 17 pp.1-35

<sup>16</sup>Lako, J., Trenerry, V. C., Wahlqvist, M., Wattanapenpaiboon, N., Sotheeswaran, S., Premier, R. **Phytochemical flavonols, carotenoids and the antioxidant properties of a wide selection of Fijian fruit, vegetables and other readily available foods.**, 2007 Food Chemistry 101 pp.1727-1741

<sup>17</sup>Horn-Ross, P. L., Barnes, S., Lee, M., Coward, L., Mandel, E., Koo, J., John, E. M., and Smith, M. **Assesing phytoestrogen exposure in epidemiologic studies: development of a database (United States).**, 2000 Cancer Causes and Control 11 pp.289-298

**Footnotes**

- <sup>a</sup> Mean value contains data based on the analysis of 5-methyltetrahydrofolate plus total folate determined microbiologically
- <sup>b</sup> Based on red-fleshed papaya; yellow-orange-fleshed papayas have 0 mcg lycopene/100 g.
- <sup>c</sup> Large variability in weight of whole fruit, especially between different cultivars.

**Langual Code(s)**

- A0143 FRUIT OR FRUIT PRODUCT (US CFR)
- A1279 0900 FRUITS AND FRUIT JUICES (USDA SR)
- B1249 PAPAYA
- C0229 FRUIT, PEEL REMOVED, CORE, PIT OR SEED REMOVED
- E0150 WHOLE, NATURAL SHAPE
- F0003 NOT HEAT-TREATED
- G0003 COOKING METHOD NOT APPLICABLE
- H0003 NO TREATMENT APPLIED
- J0001 PRESERVATION METHOD NOT KNOWN
- K0003 NO PACKING MEDIUM USED
- M0001 CONTAINER OR WRAPPING NOT KNOWN
- N0001 FOOD CONTACT SURFACE NOT KNOWN
- P0024 HUMAN FOOD, NO AGE SPECIFICATION