

List of Plants



Chemid

HISTIDINE

Dosage

ADI=15 g/day/orl

Martindale's 28th

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	*Reference
Abelmoschus esculentus	Fruit	310.0	3100.0	0.97	USDA's Ag Handbook 8 and sequelae)
Acacia farnesiana	Leaf	1840.0	9870.0	2.26	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Achillea millefolium	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Aesculus hippocastanum	Leaf	--	--		Jim Duke's personal files.
Albizia lebeck	Seed	--	--		Wealth of India.
Allium cepa	Bulb	190.0	2071.0	-1.0	USDA's Ag Handbook 8 and sequelae)
Allium schoenoprasum	Leaf	480.0	6090.0	0.36	USDA's Ag Handbook 8 and sequelae)
Allium ampeloprasum	Plant	--	--		*
Allium sativum var. sativum	Bulb	2.4	8300.0	1.0	*
Aloe vera	Leaf	--	2327.0	-1.53	*
Alpinia galanga	Leaf	--	--		*
Amaranthus sp.	Leaf	520.0	6256.0	0.44	*
Anacardium occidentale	Seed	3990.0	4059.0	-0.55	*
Ananas comosus	Fruit	48.0	667.0	-0.73	*
Anethum graveolens	Seed	3200.0	3466.0	-0.71	USDA's Ag Handbook 8 and sequelae)
Anethum graveolens	Fruit	3200.0	3466.0	1.23	*
Angelica sinensis	Root	--	--		Jim Duke's personal files.
Apium graveolens	Pt	110.0	2425.0		USDA's Ag Handbook 8 and sequelae)
Arachis hypogaea	Seed	6610.0	8013.0	0.5	*
Arctium lappa	Root	310.0	1550.0	-0.24	USDA's Ag Handbook 8 and sequelae)
Artocarpus altilis	Seed	2070.0	4735.0	-0.37	USDA's Ag Handbook 8 and sequelae)
Asimina triloba	Fruit	124.0	1336.0	-0.26	*
Asparagus officinalis	Shoot	470.0	6065.0	-1.0	*

<i>Avena sativa</i>	Seed	1000.0	6000.0	-0.03	Jim Duke's personal files.*
<i>Averrhoa carambola</i>	Fruit	40.0	440.0	-0.89	USDA's Ag Handbook 8 and sequelae)
<i>Basella alba</i>	Leaf	390.0	5650.0	0.14	*
<i>Bertholletia excelsa</i>	Seed	4020.0	4159.0	-0.52	USDA's Ag Handbook 8 and sequelae)
<i>Beta vulgaris</i>	Root	200.0	1577.0	-0.21	USDA's Ag Handbook 8 and sequelae)
<i>Bixa orellana</i>	Seed	3620.0	3930.0	-0.58	*
<i>Brassica oleracea</i> var. <i>sabellica</i> l.	Leaf	690.0	4440.0	-0.47	*
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Flower	400.0	5165.0		*
<i>Brassica oleracea</i> var. <i>gemmifera</i>	Leaf	760.0	5426.0	0.02	USDA's Ag Handbook 8 and sequelae)
<i>Brassica napus</i> var. <i>napobrassica</i>	Root	300.0	2900.0	1.08	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i> var. <i>italica</i>	Leaf	500.0	5370.0	-0.0	USDA's Ag Handbook 8 and sequelae)
<i>Brassica rapa</i>	Root	140.0	1720.0	-0.07	*
<i>Brassica oleracea</i> var. <i>viridis</i> l.	Leaf	300.0	4917.0	-0.23	*
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Leaf	500.0	5370.0	-0.0	*
<i>Brassica chinensis</i>	Leaf	260.0	5556.0	0.09	*
<i>Brassica rapa</i>	Leaf	260.0	5556.0	0.09	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i>	Stem	190.0	2111.0		*
<i>Brassica oleracea</i> var. <i>capitata</i> l.	Leaf	250.0	3343.0	-1.02	USDA's Ag Handbook 8 and sequelae)
<i>Brassica nigra</i>	Leaf	450.0	6627.0	0.63	USDA's Ag Handbook 8 and sequelae)
<i>Cajanus cajan</i>	Seed	7090.0	8655.0	0.67	*
<i>Calathea allouia</i>	Root	1080.0	1190.0	-0.59	*
<i>Camellia sinensis</i>	Leaf	--	--		*
<i>Cannabis sativa</i>	Seed	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Capsicum frutescens</i>	Fruit	410.0	3346.0	1.15	USDA's Ag Handbook 8 and sequelae)
<i>Capsicum annuum</i>	Fruit	170.0	2319.0	0.43	*
<i>Carica papaya</i>	Fruit	50.0	448.0	-0.89	USDA's Ag Handbook 8 and sequelae)
<i>Carum carvi</i>	Seed	5500.0	6105.0	-0.01	Revised USDA data received 1993.
<i>Castanea mollissima</i>	Seed	1267.0	2256.0	-1.03	*
<i>Castanea dentata</i>	Seed	1230.0	2158.0	-1.05	*
<i>Castanea sativa</i>	Seed	554.0	1218.0	-1.3	*
<i>Ceratonia siliqua</i>	Seed	--	11750.0	1.5	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Chenopodium album</i>	Leaf	1160.0	7389.0	1.01	*
<i>Cicer arietinum</i>	Seed	4620.0	6000.0	-0.03	*

<i>Cichorium endivia</i>	Leaf	230.0	3704.0	-0.84	*
<i>Cichorium intybus</i>	Leaf	150.0	3468.0	-0.96	USDA's Ag Handbook 8 and sequelae)
<i>Citrullus lanatus</i>	Seed	--	7018.0	0.24	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Citrullus lanatus</i>	Fruit	--	707.0	-0.71	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Citrus paradisi</i>	Fruit	--	140.0	-1.1	*
<i>Citrus sinensis</i>	Fruit	180.0	1359.0	-0.25	USDA's Ag Handbook 8 and sequelae)
<i>Citrus reticulata</i>	Fruit	440.0	3546.0	1.29	USDA's Ag Handbook 8 and sequelae)
<i>Coccinia grandis</i>	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Cocos nucifera</i>	Leaf	--	--		Jim Duke's personal files.
<i>Cocos nucifera</i>	Seed	770.0	1455.0	-1.24	USDA's Ag Handbook 8 and sequelae)
<i>Colocasia esculenta</i>	Root	340.0	1160.0	-0.62	*
<i>Colocasia esculenta</i>	Leaf	1140.0	7950.0	1.29	*
<i>Corchorus olitorius</i>	Leaf	690.0	8950.0	1.79	*
<i>Coriandrum sativum</i>	Fruit	--	--		*
<i>Crocus sativus</i>	Bulb	--	--		*
<i>Cryptotaenia japonica</i>	Root	--	--		*
<i>Cucumis sativus</i>	Fruit	80.0	2025.0	0.22	*
<i>Cucurbita foetidissima</i>	Seed	5835.0	19000.0	3.42	*
<i>Cucurbita spp</i>	Fruit	250.0	3955.0	1.57	*
<i>Cucurbita pepo</i>	Seed	6810.0	9615.0	0.93	*
<i>Cucurbita pepo</i>	Fruit	140.0	1905.0	0.13	*
<i>Daucus carota</i>	Root	160.0	1310.0	-0.47	*
<i>Dioscorea pentaphylla</i>	Root	300.0	1615.0	-0.17	*
<i>Fagopyrum esculentum</i>	Seed	--	2750.0	-0.9	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
<i>Ficus carica</i>	Fruit	110.0	527.0	-0.83	USDA's Ag Handbook 8 and sequelae)
<i>Foeniculum vulgare</i>	Fruit	3310.0	3631.0	1.35	*
<i>Foeniculum vulgare</i>	Seed	3310.0	3631.0	-0.66	USDA's Ag Handbook 8 and sequelae)
<i>Fragaria spp</i>	Fruit	120.0	1423.0	-0.2	USDA's Ag Handbook 8 and sequelae)
<i>Ginkgo biloba</i>	Seed	1020.0	2785.0	-0.89	USDA's Ag Handbook 8 and sequelae)
<i>Glycine max</i>	Seed	9840.0	10770.0	1.24	USDA's Ag Handbook 8 and sequelae)
<i>Glycine max</i>	Shoot	--	--		*
<i>Glycine max</i>	Sprout Seedling	--	--		*
<i>Harpagophytum procumbens</i>	Root	--	--		*
<i>Helianthus tuberosus</i>	Tuber	--	1906.0	-0.92	Izadoost, M. & Robinson, T., Synergism & antagonism in the pharmacology of alkaloidal plants, pp 137-58 in Craker, L. & Simon, J., eds., Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture & Pharmacology, v. 2, 1987, 255pp.
<i>Helianthus annuus</i>	Seed	6320.0	20000.0	3.69	*
<i>Humulus lupulus</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ipomoea batatas</i>	Root	300.0	1200.0	-0.58	*

<i>Ipomoea aquatica</i>	Leaf	470.0	6240.0	0.43	*
<i>Juglans cinerea</i>	Seed	8080.0	8359.0	0.59	*
<i>Juglans nigra</i>	Seed	6800.0	7110.0	0.26	USDA's Ag Handbook 8 and sequelae)
<i>Juglans regia</i>	Seed	3590.0	3725.0	-0.64	USDA's Ag Handbook 8 and sequelae)
<i>Lablab purpureus</i>	Seed	1090.0	8986.0	0.76	*
<i>Lactuca sativa</i>	Leaf	220.0	3667.0	-0.86	*
<i>Lagenaria siceraria</i>	Fruit	40.0	900.0	-0.57	*
<i>Lens culinaris</i>	Sprout Seedling	2570.0	8565.0	-0.42	USDA's Ag Handbook 8 and sequelae)
<i>Lens culinaris</i>	Seed	7900.0	8900.0	0.74	USDA's Ag Handbook 8 and sequelae)
<i>Lentinus edodes</i>	Fruit	--	--		*
<i>Lepidium meyenii</i>	Root	--	4190.0	2.34	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
<i>Linum usitatissimum</i>	Seed	--	0.108	-1.63	*
<i>Lupinus albus</i>	Seed	10300.0	11500.0	1.43	*
<i>Lycium chinense</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Lycopersicon esculentum</i>	Fruit	30.0	2149.0	0.31	*
<i>Lycopodium clavatum</i>	Pollen Or Spore	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Macadamia spp</i>	Seed	1680.0	1730.0	-1.17	USDA's Ag Handbook 8 and sequelae)
<i>Malus domestica</i>	Fruit	30.0	187.0	-1.07	*
<i>Mangifera indica</i>	Fruit	120.0	1200.0	-0.36	*
<i>Manihot esculenta</i>	Root	450.0	1430.0	-0.35	*
<i>Medicago sativa</i>	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
<i>Mentha spicata</i>	Leaf	660.0	4565.0	-0.41	USDA's Ag Handbook 8 and sequelae)
<i>Mentha x piperita</i>	Leaf	750.0	3515.0	-0.93	USDA's Ag Handbook 8 and sequelae)
<i>Momordica charantia</i>	Seed	--	43.6	-1.62	Jim Duke's personal files.
<i>Moringa oleifera</i>	Shoot	1960.0	9185.0	1.0	USDA's Ag Handbook 8 and sequelae)
<i>Mucuna pruriens</i>	Seed	3275.0	6945.0	0.22	*
<i>Murraya sp</i>	Fruit	640.0	1843.0	0.09	*
<i>Musa x paradisiaca</i>	Fruit	640.0	1843.0	0.09	USDA's Ag Handbook 8 and sequelae)
<i>Nasturtium officinale</i>	Herb	400.0	8000.0	1.0	USDA's Ag Handbook 8 and sequelae)
<i>Nelumbo nucifera</i>	Rhizome	380.0	1820.0	1.0	*
<i>Nelumbo nucifera</i>	Seed	1150.0	3485.0	-0.7	*
<i>Ocimum basilicum</i>	Leaf	--	2870.0	-1.26	USDA's Ag Handbook 8 and sequelae)
<i>Oenothera biennis</i>	Seed	3700.0	3949.0	-0.58	*
<i>Pachyrhizus erosus</i>	Tuber	370.0	3410.0	0.09	*
<i>Panax ginseng</i>	Root	--	20.0	-1.73	*

Panax quinquefolius	Plant	320.0	1100.0	-1.3	*
Panax ginseng	Leaf	--	--		*
Papaver somniferum	Seed	5280.0	5664.0	-0.12	*
Papaver bracteatum	Seed	4350.0	4650.0	-0.39	*
Perideridia gairdneri	Root	--	1080.0	-0.69	Izadoost, M. & Robinson, T., Synergism & antagonism in the pharmacology of alkaloidal plants, pp 137-58 in Craker, L. & Simon, J., eds., Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture & Pharmacology, v. 2, 1987, 255pp.
Persea americana	Fruit	230.0	1127.0	-0.41	*
Phaseolus vulgaris	Fruit	340.0	3494.0	1.25	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Sprout Seedling	1180.0	12688.0	1.38	USDA's Ag Handbook 8 and sequelae)
Phaseolus lunatus	Seed	2320.0	7796.0	0.44	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Seed	6010.0	6754.0	0.17	USDA's Ag Handbook 8 and sequelae)
Phoenix dactylifera	Fruit	10.0	390.0	-0.93	*
Phyllanthus emblica	Fruit	133.0	658.0	-0.74	*
Pinus pinea	Seed	5750.0	7475.0	0.36	*
Pinus edulis	Seed	2770.0	2945.0	-0.85	USDA's Ag Handbook 8 and sequelae)
Pistacia vera	Seed	5360.0	5576.0	-0.15	*
Pisum sativum	Seed	1070.0	5061.0	-0.28	*
Pisum sativum	Fruit	170.0	1682.0	-0.02	*
Portulaca oleracea	Herb	220.0	5170.0	-1.0	*
Prunus domestica	Fruit	130.0	878.0	-0.59	USDA's Ag Handbook 8 and sequelae)
Prunus persica	Fruit	130.0	1053.0	-0.46	*
Prunus armeniaca	Fruit	270.0	1980.0	0.19	USDA's Ag Handbook 8 and sequelae)
Prunus dulcis	Seed	5580.0	5837.0	-0.08	USDA's Ag Handbook 8 and sequelae)
Psidium guajava	Fruit	70.0	504.0	-0.85	USDA's Ag Handbook 8 and sequelae)
Psidium cattleianum	Fruit	50.0	260.0	-1.02	*
Psophocarpus tetragonolobus	Leaf	7900.0	8618.0	1.63	*
Psophocarpus tetragonolobus	Tuber	2410.0	5657.0	1.6	*
Psoralea esculenta	Root	--	1266.0	-0.51	Izadoost, M. & Robinson, T., Synergism & antagonism in the pharmacology of alkaloidal plants, pp 137-58 in Craker, L. & Simon, J., eds., Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture & Pharmacology, v. 2, 1987, 255pp.
Pyrus communis	Fruit	40.0	247.0	-1.03	*
Raphanus sativus	Root	130.0	2520.0	0.71	*
Rehmannia glutinosa	Root	1000.0	4000.0	2.15	*
Rosmarinus officinalis	Leaf	660.0	2050.0	-1.67	USDA's Ag Handbook 8 and sequelae)
Sambucus canadensis	Fruit	150.0	742.0	-0.68	USDA's Ag Handbook 8 and sequelae)
Secale cereale	Seed	3670.0	4120.0	-0.53	USDA's Ag Handbook 8 and sequelae)

<i>Sechium edule</i>	Fruit	160.0	2285.0	0.4	*
<i>Sesamum indicum</i>	Seed	3050.0	7112.0	0.26	*
<i>Sinapis alba</i>	Seed	7620.0	8153.0	0.54	*
<i>Solanum melongena</i>	Fruit	240.0	3098.0	0.97	*
<i>Solanum tuberosum</i>	Tuber	450.0	2140.0	-0.77	USDA's Ag Handbook 8 and sequelae)
<i>Spinacia oleracea</i>	Plant	640.0	7601.0	1.14	USDA's Ag Handbook 8 and sequelae)
<i>Stachys officinalis</i>	Shoot	--	--		*
<i>Theobroma cacao</i>	Seed	--	800.0	-1.42	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Trifolium pratense</i>	Plant	--	--		*
<i>Trigonella foenum-graecum</i>	Seed	4850.0	7350.0	0.33	*
<i>Triticum aestivum</i>	Seed	1000.0	6000.0	-0.03	*
<i>Urtica dioica</i>	Leaf	--	--		Jim Duke's personal files.
<i>Vaccinium corymbosum</i>	Fruit	100.0	715.0	-0.7	*
<i>Valerianella locusta</i>	Plant	360.0	5000.0	0.16	*
<i>Vicia faba</i>	Seed	1340.0	7050.0	0.25	USDA's Ag Handbook 8 and sequelae)
<i>Vigna unguiculata</i>	Seed	950.0	8290.0	0.58	USDA's Ag Handbook 8 and sequelae)
<i>Vigna unguiculata</i>	Fruit	900.0	7407.0	3.99	USDA's Ag Handbook 8 and sequelae)
<i>Vigna angularis</i>	Seed	5240.0	6054.0	-0.02	*
<i>Vigna radiata</i>	Sprout Seedling	700.0	7353.0	-0.96	USDA's Ag Handbook 8 and sequelae)
<i>Vigna aconitifolia</i>	Seed	7710.0	8536.0	0.64	*
<i>Vigna unguiculata</i>	Seed	7550.0	8245.0	0.56	USDA's Ag Handbook 8 and sequelae)
<i>Vigna radiata</i>	Seed	6950.0	7642.0	0.4	USDA's Ag Handbook 8 and sequelae)
<i>Vitis vinifera</i>	Fruit	240.0	1235.0	-0.33	USDA's Ag Handbook 8 and sequelae)
<i>Zea mays</i>	Seed	890.0	3702.0	-0.64	USDA's Ag Handbook 8 and sequelae)
<i>Zea mays</i>	Embryo	--	--		*
<i>Zingiber officinale</i>	Rhizome	300.0	1738.0	-1.0	*
<i>Zingiber officinale</i>	Root	300.0	1738.0	-0.05	USDA's Ag Handbook 8 and sequelae)