

List of Plants



Chemid
TYROSINE

*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	480.0	8700.0	2.6	*
Abrus precatorius	Seed	--	--		Zaidi, Z. H., Sdiqui, B. S., Naim, Z. 1971. Chemical Investigations of Seeds of Abrus precatorius. Pak. J. Sci. Ind. Res., 14: 350.
Acacia farnesiana	Leaf	2240.0	12010.0	1.11	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Albizia lebeck	Seed	--	--		Wealth of India.
Allium cepa	Bulb	290.0	3161.0	-1.0	USDA's Ag Handbook 8 and sequelae)
Allium schoenoprasum	Leaf	810.0	10160.0	0.6	USDA's Ag Handbook 8 and sequelae)
Allium ampeloprasum	Plant	--	--		*
Allium sativum var. sativum	Bulb	0.6	6200.0	1.0	*
Allium sativum var. sativum	Leaf	--	--		*
Aloe vera	Leaf	--	5073.0	-0.81	*
Alpinia galanga	Leaf	--	--		*
Amaranthus sp.	Leaf	800.0	9624.0	0.45	*
Anacardium occidentale	Seed	4910.0	4995.0	-0.64	*
Ananas comosus	Fruit	58.0	889.0	-0.63	*
Angelica sinensis	Root	--	--		Jim Duke's personal files.
Angelica archangelica	Leaf	--	--		*
Apium graveolens	Pt	90.0	1865.0		USDA's Ag Handbook 8 and sequelae)
Arachis hypogaea	Seed	10630.0	13198.0	1.26	*
Arctium lappa	Root	180.0	900.0	-1.79	USDA's Ag Handbook 8 and sequelae)
Artemisia dracunculus	Leaf	--	--		*
Artemisia dracunculus	Shoot	--	--		*
Artemisia dracunculus	Root	--	--		*
Artocarpus altilis	Fruit	190.0	645.0	-0.73	*
Asimina triloba	Fruit	140.0	1501.0	-0.38	*
Asparagus officinalis	Shoot	480.0	6194.0	-1.0	*
Avena sativa	Seed	2000.0	14000.0	1.45	Jim Duke's personal files.*
Averrhoa carambola	Fruit	230.0	2530.0	0.05	USDA's Ag Handbook 8 and sequelae)

Basella alba	Leaf	480.0	6955.0	-0.29	*
Bertholletia excelsa	Seed	4570.0	4728.0	-0.7	USDA's Ag Handbook 8 and sequelae)
Beta vulgaris	Root	350.0	2760.0	1.21	USDA's Ag Handbook 8 and sequelae)
Brassica chinensis	Leaf	290.0	6197.0	-0.5	*
Brassica oleracea var. botrytis l.	Flower	430.0	5555.0		*
Brassica oleracea var. viridis l.	Leaf	420.0	6884.0	-0.31	*
Brassica nigra	Leaf	1320.0	19440.0	3.17	USDA's Ag Handbook 8 and sequelae)
Brassica rapa	Root	130.0	1600.0	-0.66	*
Brassica oleracea var. capitata l.	Leaf	210.0	2807.0	-1.44	USDA's Ag Handbook 8 and sequelae)
Brassica rapa	Leaf	290.0	6197.0	-0.5	USDA's Ag Handbook 8 and sequelae)
Brassica napus var. napobrassica	Root	230.0	2225.0	0.35	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. sabellica l.	Leaf	1170.0	7530.0	-0.13	*
Brassica oleracea var. italica	Leaf	630.0	6766.0	-0.34	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. botrytis l.	Leaf	630.0	6766.0	-0.34	*
Cajanus cajan	Seed	4510.0	6015.0	-0.4	*
Calathea allouia	Root	1805.0	1985.0	-0.04	*
Capsicum frutescens	Fruit	420.0	3427.0	0.42	USDA's Ag Handbook 8 and sequelae)
Capsicum annuum	Fruit	180.0	2455.0	0.02	USDA's Ag Handbook 8 and sequelae)
Carica papaya	Fruit	50.0	448.0	-0.82	USDA's Ag Handbook 8 and sequelae)
Carum carvi	Seed	6420.0	7125.0	-0.14	Revised USDA data received 1993.
Castanea sativa	Seed	568.0	1251.0	-1.5	*
Castanea mollissima	Seed	1536.0	2735.0	-1.16	*
Castanea dentata	Seed	1585.0	2822.0	-1.14	*
Ceratonia siliqua	Seed	--	16450.0	2.02	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Chenopodium album	Leaf	1750.0	11148.0	0.87	*
Cicer arietinum	Seed	4790.0	5415.0	-0.54	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	400.0	6441.0	-0.44	*
Citrullus lanatus	Seed	--	10200.0	0.57	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Citrullus lanatus	Fruit	--	1413.0	-0.42	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Citrus paradisi	Fruit	--	61.0	-0.98	*
Citrus sinensis	Fruit	160.0	1208.0	-0.5	USDA's Ag Handbook 8 and sequelae)
Citrus reticulata	Fruit	110.0	887.0	-0.63	USDA's Ag Handbook 8 and sequelae)
Cnidioscolus chayamansa	Leaf	2170.0	10850.0	0.79	*

<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>	Seed	1030.0	1945.0	-1.34	USDA's Ag Handbook 8 and sequelae)
<i>Cocos nucifera</i>	Leaf	--	--		Jim Duke's personal files.
<i>Colocasia esculenta</i>	Root	550.0	1875.0	-0.22	*
<i>Colocasia esculenta</i>	Leaf	1780.0	12415.0	1.22	*
<i>Corchorus olitorius</i>	Leaf	830.0	11965.0	1.1	*
<i>Coriandrum sativum</i>	Fruit	--	--		*
<i>Crocus sativus</i>	Bulb	--	--		*
<i>Cryptotaenia japonica</i>	Shoot	--	--		*
<i>Cryptotaenia japonica</i>	Root	--	--		*
<i>Cucumis sativus</i>	Fruit	90.0	2278.0	-0.06	*
<i>Cucurbita pepo</i>	Fruit	130.0	5000.0	1.07	*
<i>Cucurbita spp</i>	Fruit	310.0	4905.0	1.03	*
<i>Cucurbita pepo</i>	Seed	9275.0	12235.0	1.04	*
<i>Cucurbita foetidissima</i>	Seed	11350.0	13680.0	1.38	*
<i>Daucus carota</i>	Root	200.0	1640.0	-0.6	*
<i>Dioscorea pentaphylla</i>	Root	350.0	1885.0	-0.2	*
<i>Fagopyrum esculentum</i>	Seed	--	2750.0	-1.16	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
<i>Ficus carica</i>	Fruit	320.0	1532.0	-0.37	USDA's Ag Handbook 8 and sequelae)
<i>Foeniculum vulgare</i>	Fruit	4100.0	4498.0	0.86	*
<i>Foeniculum vulgare</i>	Seed	4100.0	4498.0	-0.75	USDA's Ag Handbook 8 and sequelae)
<i>Ginkgo biloba</i>	Seed	610.0	1665.0	-1.41	USDA's Ag Handbook 8 and sequelae)
<i>Glechoma hederacea</i>	Plant	--	--		Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)
<i>Glycine max</i>	Shoot	--	--		*
<i>Glycine max</i>	Seed	13800.0	15090.0	1.7	USDA's Ag Handbook 8 and sequelae)
<i>Helianthus tuberosus</i>	Tuber	--	1715.0	-0.88	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	6660.0	7035.0	-0.16	*
<i>Hordeum vulgare</i>	Seed	2000.0	6000.0	-0.4	Jim Duke's personal files.*
<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 aquatica</i>	Leaf	800.0	10625.0	0.73	*
<i>Ipomoea batatas</i>	Root	460.0	2504.0	0.8	*
<i>Juglans nigra</i>	Seed	7490.0	7830.0	0.02	USDA's Ag Handbook 8 and sequelae)
<i>Juglans regia</i>	Seed	4390.0	4555.0	-0.74	USDA's Ag Handbook 8 and sequelae)
<i>Juglans cinerea</i>	Seed	9770.0	10108.0	0.55	*
<i>Lablab purpureus</i>	Seed	1550.0	12788.0	1.17	*

Lactuca sativa	Leaf	320.0	5333.0	-0.74	*
Larrea tridentata	Plant	--	3100.0	-0.68	*
Lens culinaris	Sprout Seedling	2520.0	8400.0	-0.33	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Seed	7500.0	8445.0	0.16	USDA's Ag Handbook 8 and sequelae)
Lentinus edodes	Fruit	--	--		*
Lepidium meyenii	Root	--	3060.0	1.7	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Linum usitatissimum	Seed	--	0.133	-1.79	*
Lupinus albus	Seed	13600.0	15185.0	1.72	*
Lycopersicon esculentum	Fruit	38.0	2479.0	0.02	*
Macadamia spp	Seed	3370.0	3465.0	-0.99	USDA's Ag Handbook 8 and sequelae)
Malus domestica	Fruit	40.0	249.0	-0.9	*
Mangifera indica	Fruit	100.0	1600.0	-0.34	*
Manihot esculenta	Root	400.0	1270.0	-1.19	*
Mentha x piperita	Leaf	1130.0	5295.0	-0.75	USDA's Ag Handbook 8 and sequelae)
Mentha spicata	Leaf	990.0	6850.0	-0.32	USDA's Ag Handbook 8 and sequelae)
Momordica charantia	Seed	--	517.0	-1.67	Jim Duke's personal files.
Moringa oleifera	Shoot	3470.0	16260.0	1.0	USDA's Ag Handbook 8 and sequelae)
Mucuna pruriens	Seed	7975.0	16907.0	2.12	*
Murraya sp	Fruit	320.0	922.0	-0.62	*
Musa x paradisiaca	Fruit	240.0	932.0	-0.62	USDA's Ag Handbook 8 and sequelae)
Nasturtium officinale	Herb	630.0	12600.0	1.0	USDA's Ag Handbook 8 and sequelae)
Nelumbo nucifera	Seed	1000.0	3030.0	-1.09	*
Nelumbo nucifera	Rhizome	290.0	1390.0	1.0	*
Nigella sativa	Seed	12925.0	16530.0	2.04	*
Ocimum basilicum	Leaf	--	4320.0	-1.02	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	3400.0	3629.0	-0.95	*
Opuntia ficus-indica	Seed	--	6590.0	-0.27	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Opuntia ficus-indica	Bud	--	3220.0		Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Oryza sativa	Plant	--	--		*
Pachyrhizus erosus	Tuber	230.0	2120.0	-0.72	*
Panax quinquefolius	Plant	--	--		*
Panax ginseng	Root	--	--		*
Panax ginseng	Leaf	--	--		*
Papaver somniferum	Seed	6810.0	7305.0	-0.1	*
Papaver bracteatum	Seed	6700.0	8100.0	0.08	*

Passiflora incarnata	Stem	--	--		*
Passiflora incarnata	Seed	--	--		*
Passiflora incarnata	Leaf	--	--		*
Perideridia gairdneri	Root	--	1905.0	-0.17	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	390.0	1904.0	-0.21	*
Phaseolus vulgaris	Sprout Seedling	1440.0	15484.0	1.36	USDA's Ag Handbook 8 and sequelae)
Phaseolus lunatus	Seed	2200.0	8450.0	0.16	*
Phaseolus vulgaris	Seed	6080.0	6833.0	-0.21	USDA's Ag Handbook 8 and sequelae)
Phaseolus acutifolius	Seed	11250.0	12260.0	1.05	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Phaseolus vulgaris	Fruit	420.0	4317.0	0.79	USDA's Ag Handbook 8 and sequelae)
Phoenix dactylifera	Fruit	10.0	1730.0	-0.29	*
Phyllanthus emblica	Fruit	116.0	575.0	-0.76	*
Pinus pinea	Seed	8780.0	11400.0	0.85	*
Pinus edulis	Seed	4240.0	4505.0	-0.75	USDA's Ag Handbook 8 and sequelae)
Pistacia vera	Seed	7140.0	7427.0	-0.07	*
Pisum sativum	Fruit	990.0	9792.0	3.06	*
Pisum sativum	Seed	1130.0	5345.0	-0.56	*
Plantago ovata	Seed	--	--		*
Plantago major	Plant	--	--		*
Portulaca oleracea	Herb	220.0	4400.0	-1.0	*
Prunus dulcis	Seed	7050.0	7374.0	-0.09	USDA's Ag Handbook 8 and sequelae)
Prunus armeniaca	Fruit	290.0	2125.0	-0.12	USDA's Ag Handbook 8 and sequelae)
Prunus domestica	Fruit	60.0	405.0	-0.83	USDA's Ag Handbook 8 and sequelae)
Prunus persica	Fruit	180.0	1458.0	-0.4	*
Prunus cerasus	Fruit	--	--		*
Psidium guajava	Fruit	100.0	720.0	-0.7	USDA's Ag Handbook 8 and sequelae)
Psidium cattleianum	Fruit	70.0	360.0	-0.85	*
Psophocarpus tetragonolobus	Tuber	3530.0	8286.0	1.64	*
Psophocarpus tetragonolobus	Seed	14570.0	15896.0	1.89	*
Psophocarpus tetragonolobus	Leaf	1260.0	5443.0	-0.71	*
Psoralea esculenta	Root	--	1899.0	-0.18	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	30.0	185.0	-0.93	*
Raphanus sativus	Root	130.0	2520.0	0.83	*

Rehmannia glutinosa	Root	1000.0	3000.0	1.6	*
Rosmarinus officinalis	Leaf	1000.0	3100.0	-1.36	USDA's Ag Handbook 8 and sequelae)
Salvia officinalis	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Sambucus nigra	Fruit	2200.0	2900.0	0.2	*
Sambucus nigra	Fruit Juice	--	--		*
Sambucus canadensis	Fruit	510.0	2524.0	0.04	USDA's Ag Handbook 8 and sequelae)
Secale cereale	Seed	3390.0	3800.0	-0.91	USDA's Ag Handbook 8 and sequelae)
Sechium edule	Fruit	350.0	5000.0	1.07	*
Senna obtusifolia	Seed	--	4420.0	-0.77	*
Sesamum indicum	Seed	4220.0	11818.0	0.94	*
Sinapis alba	Seed	7440.0	7961.0	0.05	*
Solanum melongena	Fruit	250.0	3593.0	0.49	*
Solanum tuberosum	Tuber	770.0	3900.0	-0.04	*
Spinacia oleracea	Plant	1080.0	12826.0	1.69	USDA's Ag Handbook 8 and sequelae)
Stachys officinalis	Shoot	--	--		*
Theobroma cacao	Seed	--	5700.0	-0.47	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Thymus vulgaris	Plant	2410.0	2603.0	-0.8	USDA's Ag Handbook 8 and sequelae)
Tilia sp.	Fruit	--	--		*
Trifolium pratense	Plant	--	--		*
Trigonella foenum-graecum	Seed	6410.0	8400.0	0.15	*
Triticum aestivum	Seed	1000.0	9000.0	0.29	*
Urtica dioica	Leaf	--	--		Jim Duke's personal files.
Vaccinium corymbosum	Fruit	80.0	520.0	-0.79	*
Valeriana officinalis	Root	--	--		*
Valerianella locusta	Plant	360.0	5000.0	-0.21	*
Vicia faba	Seed	1960.0	10315.0	0.6	USDA's Ag Handbook 8 and sequelae)
Vigna radiata	Seed	7140.0	7850.0	0.03	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	1210.0	8631.0	0.21	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Fruit	1150.0	9465.0	2.92	USDA's Ag Handbook 8 and sequelae)
Vigna angularis	Seed	5910.0	6828.0	-0.21	*
Vigna radiata	Sprout Seedling	520.0	5462.0	-1.03	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	7860.0	8584.0	0.2	USDA's Ag Handbook 8 and sequelae)
Vitis vinifera	Fruit	120.0	617.0	-0.75	USDA's Ag Handbook 8 and sequelae)
Zea mays	Seed	1230.0	5117.0	-0.61	USDA's Ag Handbook 8 and sequelae)
Zingiber officinale	Root	200.0	1122.0	-1.43	USDA's Ag Handbook 8 and sequelae)

Zingiber officinale	Rhizome	200.0	1122.0	-1.0	*
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