

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for PROLINE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. capitata l.	Leaf	2380.0	31821.0	2.980259571782197	USDA's Ag Handbook 8 and sequelae)
Glycine max	Seed	21350.0	23344.0	2.3591098196440687	USDA's Ag Handbook 8 and sequelae)
Allium schoenoprasum	Leaf	1850.0	23125.0	1.7207379254141373	USDA's Ag Handbook 8 and sequelae)
Acacia farnesiana	Leaf	4080.0	21890.0	1.5418615186449842	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Moringa oleifera	Shoot	4510.0	21135.0	1.4258944352803073	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Seed	19240.0	20991.0	1.8968412533614334	--
Asparagus officinalis	Shoot	1620.0	20903.0	1.4024674410990334	--
Sinapis alba	Seed	19440.0	20800.0	1.8593175405862599	--
Triticum aestivum	Seed	17526.0	20447.0	1.789967432682405	--
Corchorus olitorius	Leaf	1130.0	20052.0	1.2756470768298402	--
Mucuna pruriens	Seed	9225.0	19555.0	1.614725800245469	--
Nasturtium officinale	Herb	960.0	19200.0	1.0	USDA's Ag Handbook 8 and sequelae)
Ceratonia siliqua	Seed		18800.0	1.4663990822074793	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Phaseolus vulgaris	Sprout Seedling	1690.0	18172.0	1.0	USDA's Ag Handbook 8 and sequelae)
Trigonella foenum-graecum	Seed	11980.0	17800.0	1.269939853018089	--
Cucurbita pepo	Fruit	260.0	17100.0	3.5944692903421607	--
Secale cereale	Seed	14910.0	16745.0	1.0626753662232822	USDA's Ag Handbook 8 and sequelae)
Cicer arietinum	Seed	7970.0	16530.0	1.0204366319475633	--
Lupinus albus	Seed	14760.0	16480.0	1.0106136704880937	--
Psophocarpus tetragonolobus	Tuber	6790.0	15939.0	1.66057243292518	--
Cucurbita foetidissima	Seed	8290.0	15390.0	0.7964731106716583	--
Arachis hypogaea	Seed	11540.0	15362.0	0.7909722522543554	--
Abelmoschus esculentus	Fruit	450.0	14930.0	2.9987180634006636	--
Amaranthus sp.	Leaf	1210.0	14556.0	0.4796108569081685	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nigella sativa	Seed	11350.0	14520.0	0.6255535812768888	--
Sesamum indicum	Seed	8100.0	14277.0	0.5778139885838669	--
Chenopodium album	Leaf	2230.0	14205.0	0.42877229919483034	--
Vigna unguiculata	Seed		14050.0	0.5332177435578753	--
Vigna unguiculata	Seed		14050.0	0.5332177435578753	--
Pinus pinea	Seed	12900.0	13900.0	0.5037488591794668	--
Spinacia oleracea	Plant	1120.0	13301.0	1.2034784447687357	USDA's Ag Handbook 8 and sequelae)
Vicia faba	Seed	2520.0	13265.0	0.37899724864420387	USDA's Ag Handbook 8 and sequelae)
Portulaca oleracea	Herb	540.0	13200.0	-1.0	--
Lens culinaris	Seed	11720.0	13200.0	0.36622739874689353	USDA's Ag Handbook 8 and sequelae)
Prunus dulcis	Seed	12550.0	13127.0	0.351885875016068	USDA's Ag Handbook 8 and sequelae)
Lablab purpureus	Seed	1070.0	12822.0	0.29196581011330397	--
Juglans cinerea	Seed	12360.0	12787.0	0.2850897370916753	--
Brassica oleracea var. sabellica l.	Leaf	1960.0	12610.0	0.19775378195045876	--
Helianthus annuus	Seed	11820.0	12500.0	0.2287059383143203	--
Brassica oleracea var. botrytis l.	Leaf	1140.0	12244.0	0.14474263630065312	--
Brassica oleracea var. italica	Leaf	1140.0	12244.0	0.14474263630065312	USDA's Ag Handbook 8 and sequelae)
Zea mays	Seed	2920.0	12147.0	0.15935583041046553	--
Vigna radiata	Seed	10950.0	12090.0	0.14815765434667028	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Sprout Seedling	3560.0	11865.0	-1.0	USDA's Ag Handbook 8 and sequelae)
Cajanus cajan	Seed	9550.0	11830.0	0.09707825475742879	--
Citrullus lanatus	Seed		11800.0	0.09118447788174708	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ipomoea aquatica	Leaf	880.0	11685.0	0.06377752586829968	--
Papaver somniferum	Seed	10620.0	11392.0	0.011029112372475834	--
Brassica oleracea var. botrytis l.	Flower	860.0	11110.0		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. viridis l.	Leaf	670.0	10981.0	-0.038189267949905695	--
Phaseolus lunatus	Seed	1020.0	10855.0	-0.09446949370222676	--
Valerianella locusta	Plant	780.0	10830.0	0.7712093500636632	--
Cucurbita pepo	Seed	10000.0	10743.0	-0.11647292737143848	USDA's Ag Handbook 8 and sequelae)
Opuntia ficus-indica	Seed		10500.0	-0.16421252006446033	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Nelumbo nucifera	Seed	3440.0	10424.0	-0.17914342148285398	--
Phaseolus vulgaris	Seed	9160.0	10294.0	-0.20468312127747473	USDA's Ag Handbook 8 and sequelae)
Carum carvi	Seed	9170.0	10180.0	-0.2270794734050652	Revised USDA data received 1993.
Basella alba	Leaf	700.0	10145.0	-0.15927483560902458	--
Vigna angularis	Seed	8740.0	10097.0	-0.24338558942778463	--
Foeniculum vulgare	Seed	9000.0	9873.0	-0.28739245676620806	USDA's Ag Handbook 8 and sequelae)
Foeniculum vulgare	Fruit	9000.0	9873.0	1.6103706188646485	--
Pistacia vera	Seed	9470.0	9851.0	-0.29171455980837463	--
Juglans nigra	Seed	9370.0	9800.0	-0.30173398049703354	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	590.0	9500.0	-0.2526961168771247	--
Ginkgo biloba	Seed	3470.0	9475.0	-0.3655832299835854	USDA's Ag Handbook 8 and sequelae)
Mentha spicata	Leaf	1350.0	9345.0	-0.27514619222062164	USDA's Ag Handbook 8 and sequelae)
Artocarpus altilis	Seed	3690.0	8440.0	-0.5689185321946043	USDA's Ag Handbook 8 and sequelae)
Papaver bracteatum	Seed	6800.0	8400.0	-0.57677690136218	--
Pisum sativum	Seed	1730.0	8183.0	-0.6194085540962777	--
Lactuca sativa	Leaf	480.0	8000.0	-0.4699549105238691	--
Bertholletia excelsa	Seed	7620.0	7884.0	-0.6781498636239054	USDA's Ag Handbook 8 and sequelae)
Prunus armeniaca	Fruit	1010.0	7400.0	0.9314338519400758	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Leaf	1680.0	7257.0	-0.5775704329768899	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Mentha x piperita</i>	Leaf	1540.0	7215.0	-0.5836536791989987	USDA's Ag Handbook 8 and sequelae)
<i>Theobroma cacao</i>	Seed		7200.0	-0.8125279763894483	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Capsicum frutescens</i>	Fruit	870.0	7099.0	0.8487973914288358	--
<i>Anacardium occidentale</i>	Seed	6900.0	7019.0	-0.848087096872728	--
<i>Phaseolus vulgaris</i>	Fruit	680.0	6989.0	0.8185980204778843	USDA's Ag Handbook 8 and sequelae)
<i>Sechium edule</i>	Fruit	480.0	6855.0	0.7818096958649071	--
<i>Solanum tuberosum</i>	Tuber	740.0	6700.0	-0.13308264485534704	--
<i>Brassica chinensis</i>	Leaf	310.0	6625.0	-0.6691088047000515	--
<i>Brassica rapa</i>	Leaf	310.0	6625.0	-0.6691088047000515	USDA's Ag Handbook 8 and sequelae)
<i>Pinus edulis</i>	Seed	6220.0	6610.0	-0.9284389216111886	USDA's Ag Handbook 8 and sequelae)
<i>Lycium barbarum</i>	Fruit		6500.0	0.6843480896141092	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Nelumbo nucifera</i>	Rhizome	1360.0	6500.0	1.0	--
<i>Oenothera biennis</i>	Seed	5900.0	6297.0	-0.9899306603474678	--
<i>Pisum sativum</i>	Fruit	630.0	6231.0	0.6104969006522369	--
<i>Fagopyrum esculentum</i>	Seed		5965.0	-1.0551551244383455	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
<i>Ocimum basilicum</i>	Leaf		5880.0	-0.7770140055446013	USDA's Ag Handbook 8 and sequelae)
<i>Cucurbita spp</i>	Fruit	370.0	5855.0	0.5072699599471664	--
<i>Allium sativum var. sativum</i>	Bulb	1.3	5800.0	1.0	--
<i>Juglans regia</i>	Seed	5530.0	5740.0	-1.0993584510059582	USDA's Ag Handbook 8 and sequelae)
<i>Solanum melongena</i>	Fruit	460.0	5700.0	0.4647163008799166	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Perideridia gairdneri	Root		5524.0	2.3839886591088133	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.
Senna obtusifolia	Seed		5360.0	-1.1740129580979266	--
Capsicum annuum	Fruit	370.0	5047.0	0.28544185332563193	--
Pachyrhizus erosus	Tuber	470.0	4330.0	-0.5931933207228488	--
Rosmarinus officinalis	Leaf	1360.0	4220.0	-1.0174470705136651	USDA's Ag Handbook 8 and sequelae)
Macadamia spp	Seed	3960.0	4075.0	-1.426463067606293	USDA's Ag Handbook 8 and sequelae)
Allium cepa	Bulb	370.0	4033.0	-1.0	USDA's Ag Handbook 8 and sequelae)
Rehmannia glutinosa	Root	3000.0	4000.0	1.3672485652811677	--
Opuntia ficus-indica	Bud		3995.0		Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Castanea dentata	Seed	2141.0	3811.0	-1.478328304112292	--
Asimina triloba	Fruit	282.0	3648.0	-0.0986392372232873	--
Raphanus sativus	Root	180.0	3490.0	1.0270008960868768	--
Citrus sinensis	Fruit	60.0	3473.0	-0.14668369100889192	--
Aloe vera	Leaf		3339.0	-1.1450504019821863	--
Phyllanthus emblica	Fruit	652.0	3225.0	-0.2147695455164916	--
Apium graveolens	Leaf	170.0	3208.0	-1.1640243366273353	USDA's Ag Handbook 8 and sequelae)
Cnidioscolus chayamansa	Leaf	620.0	3100.0	-1.179666969769901	--
Cucumis sativus	Fruit	120.0	3038.0	-0.2661084761331091	--
Beta vulgaris	Root	380.0	2997.0	0.6980948158657292	USDA's Ag Handbook 8 and sequelae)
Persea americana	Fruit	620.0	2993.0	-0.27846276424940747	--
Castanea mollissima	Seed	1632.0	2904.0	-1.6565168249870692	--
Calathea allouia	Root	2610.0	2870.0	0.6133664747134254	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Averrhoa carambola	Fruit	260.0	2860.0	-0.31497654912646694	USDA's Ag Handbook 8 and sequelae)
Ipomoea batatas	Root	710.0	2840.0	0.5933519059372906	--
Citrullus lanatus	Fruit		2827.0	-0.3240363604117524	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Lycopersicon esculentum	Fruit	170.0	2810.0	-0.32870353592235396	--
Cocos nucifera	Seed	1380.0	2605.0	-1.7152581345146969	USDA's Ag Handbook 8 and sequelae)
Arctium lappa	Root	520.0	2600.0	0.43323535572821265	USDA's Ag Handbook 8 and sequelae)
Dioscorea pentaphylla	Root	480.0	2585.0	0.42322807134014523	--
Helianthus tuberosus	Tuber		2573.0	-0.9342964673469841	Izidoost, 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.
Citrus reticulata	Fruit	310.0	2499.0	-0.4140853937927713	USDA's Ag Handbook 8 and sequelae)
Manihot esculenta	Root	760.0	2415.0	0.309812181608715	--
Zingiber officinale	Rhizome	410.0	2376.0	-1.0	--
Zingiber officinale	Root	410.0	2376.0	0.2837932421997398	USDA's Ag Handbook 8 and sequelae)
Daucus carota	Root	290.0	2375.0	0.28312608990720195	--
Prunus persica	Fruit	290.0	2349.0	-0.45526635418043243	--
Ficus carica	Fruit	490.0	2346.0	-0.4560899733881857	USDA's Ag Handbook 8 and sequelae)
Prunus domestica	Fruit	340.0	2297.0	-0.469542420448155	USDA's Ag Handbook 8 and sequelae)
Castanea sativa	Seed	1010.0	2222.0	-1.7905020192942334	--
Colocasia esculenta	Root	600.0	2045.0	0.0629658333697197	--
Mangifera indica	Fruit	180.0	2000.0	-0.551080722015724	--
Fragaria spp	Fruit	190.0	1898.0	-0.5790837750793335	USDA's Ag Handbook 8 and sequelae)
Psidium guajava	Fruit	250.0	1800.0	-0.6059886691992721	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vaccinium corymbosum	Fruit	250.0	1624.0	-0.6543076627207944	--
Phoenix dactylifera	Fruit	120.0	1590.0	-0.6636420137419976	--
Musa x paradisiaca	Fruit	400.0	1554.0	-0.6735254442350362	USDA's Ag Handbook 8 and sequelae)
Murraya sp	Fruit	50.0	1440.0	-0.7048229741296588	--
Psoralea esculenta	Root		1266.0	-0.45674580251724606	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.
Sambucus canadensis	Fruit	250.0	1238.0	-0.7602800007850423	USDA's Ag Handbook 8 and sequelae)
Vitis vinifera	Fruit	220.0	1132.0	-0.7893812127923229	USDA's Ag Handbook 8 and sequelae)
Panax quinquefolius	Plant	175.0	1120.0	-0.9274280071141	--
Ananas comosus	Fruit	31.0	963.0	-0.8357784281624211	--
Psidium cattleianum	Fruit	180.0	930.0	-0.8448382394477065	--
Carica papaya	Fruit	100.0	895.0	-0.8544471302048274	USDA's Ag Handbook 8 and sequelae)
Pyrus communis	Fruit	110.0	679.0	-0.9137477131630594	--
Citrus paradisi	Fruit		590.0	-0.9381817496597383	--
Pisum sativum	Root		575.0	-0.9177480366608831	--
Lycopersicon esculentum	Root		541.0	-0.940431214607169	--
Malus domestica	Plant	20.0	435.0	-1.0472597877182985	--
Hordeum vulgare	Root	57.0	219.0	-1.1552542528043488	--
Triticum aestivum	Root		173.0	-1.1859432582610887	--
Ribes nigrum	Fruit Juice		98.0		--
Zea mays	Root		69.0	-1.2553270966850225	--
Lepidium meyenii	Root		50.0	-1.2680029902432413	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Pisum sativum	Shoot		23.0	-0.7059620352156295	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Triticum aestivum	Shoot		12.0	-0.7070727978707761	--
Zea mays	Shoot		11.0	-0.7071737762939713	--
Avena sativa	Root		2.4	-1.2997594393680416	--
Avena sativa	Shoot		1.3	-0.7081532669989642	--
Linum usitatissimum	Seed		0.191	-2.226996902840283	--
Santalum album	Fruit				--
Rosa damascena	Pollen Or Spore				--
Allium sativum var. sativum	Leaf				--
Silybum marianum	Tissue Culture				--
Passiflora incarnata	Plant				--
Morus alba	Leaf				--
Angelica sinensis	Root				Jim Duke's personal files.
Anastatica hierochuntica	Plant				--
Lentinus edodes	Fruit				--
Melia azedarach	Seed				--
Glycine max	Shoot				--
Coriandrum sativum	Fruit				--
Alpinia galanga	Leaf				--
Cocos nucifera	Leaf				Jim Duke's personal files.
Astragalus membranaceus	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Crocus sativus	Bulb				--
Capsella bursa-pastoris	Plant				--
Terminalia chebula	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Prunus cerasus	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Prosopis glandulosa</i>	Leaf				Carman, N. J., Dossaji, S. F., Mabry, T. J. 1974. A Populational Survey of Amino Acids in <i>Prosopis</i> Species from North and South America. <i>Biochem. Syst. Ecol.</i> 2: 73.
<i>Myrciaria dubia</i>	Fruit				Jim Duke's personal files.
<i>Tamarindus indica</i>	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Panax ginseng</i>	Root				--
<i>Panax ginseng</i>	Leaf				--
<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>Glechoma hederacea</i>	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Lippia javanica</i>	Plant				Neidlein, R., Staehle, R. 1974. Constituents of <i>Lippia javanica</i> . III. <i>Deutsche Apot. Ztit.</i> , 114: 1588.
<i>Punica granatum</i>	Fruit				--
<i>Artemisia dracuncululus</i>	Leaf				--
<i>Scutellaria baicalensis</i>	Root				--
<i>Momordica charantia</i>	Fruit				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>Hypericum perforatum</i>	Plant				--
<i>Urtica dioica</i>	Leaf				Jim Duke's personal files.
<i>Camellia sinensis</i>	Leaf				--
<i>Allium ampeloprasum</i>	Plant				--
<i>Artemisia dracuncululus</i>	Root				--
<i>Harpagophytum procumbens</i>	Root				--