

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for ALANINE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nasturtium officinale	Herb	1370.0	27400.0	1.0	USDA's Ag Handbook 8 and sequelae)
Moringa oleifera	Shoot	5320.0	24930.0	1.0	USDA's Ag Handbook 8 and sequelae)
Cucurbita pepo	Seed	11580.0	24420.0	3.0321935802284528	--
Corchorus olitorius	Leaf	2560.0	20840.0	1.917441656254907	--
Chenopodium album	Plant	3220.0	20511.0	1.1026806613709943	--
Ceratonia siliqua	Seed		19270.0	1.937406602299025	--
Glycine max	Seed	17190.0	18795.0	1.8364311043346604	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Sprout Seedling	1740.0	18710.0	1.3947743775561388	USDA's Ag Handbook 8 and sequelae)
Asparagus officinalis	Seed	1440.0	18581.0	1.7909389852517676	--
Acacia farnesiana	Leaf	3440.0	18450.0	1.3615480815328946	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Brassica chinensis	Leaf	860.0	18378.0	1.3448014968550768	--
Brassica rapa	Leaf	860.0	18378.0	1.3448014968550768	USDA's Ag Handbook 8 and sequelae)
Cucurbita foetidissima	Seed	10130.0	17100.0	1.4761080115986642	--
Spinacia oleracea	Plant	1420.0	16864.0	0.5700171464175169	USDA's Ag Handbook 8 and sequelae)
Amaranthus sp.	Leaf	1390.0	16722.0	0.9596300492652641	--
Allium schoenoprasum	Leaf	1260.0	15830.0	0.7521584724234085	USDA's Ag Handbook 8 and sequelae)
Aloe vera	Leaf		15769.0	0.737970393738035	--
Citrullus lanatus	Seed		15000.0	1.029690020598315	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Pinus pinea	Seed	12540.0	15000.0	1.029690020598315	--
Sesamum indicum	Seed	5510.0	14802.0	0.9875991814468537	--
Ipomoea aquatica	Leaf	1090.0	14475.0	0.4369970524450292	--
Lupinus albus	Seed	12960.0	14470.0	0.9170226228696556	--
Cnidioscolus chayamansa	Leaf	2850.0	14260.0	0.3869898898654339	--
Juglans cinerea	Seed	13724.0	14194.0	0.8583505440524668	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. botrytis l.	Flower	1050.0	13565.0		--
Vigna angularis	Seed	11600.0	13401.0	0.6897746074509065	--
Portulaca oleracea	Herb	570.0	13400.0	-1.0	--
Lens culinaris	Seed	11720.0	13200.0	0.6470460283123016	USDA's Ag Handbook 8 and sequelae)
Sinapis alba	Seed	11870.0	12700.0	0.5407560304550756	--
Brassica oleracea var. botrytis l.	Leaf	1180.0	12673.0	0.017867252591863454	--
Brassica oleracea var. italica	Leaf	1180.0	12673.0	0.017867252591863454	USDA's Ag Handbook 8 and sequelae)
Papaver somniferum	Seed	11780.0	12637.0	0.5273634907250652	--
Zea mays	Seed	2950.0	12272.0	0.44977179228929015	USDA's Ag Handbook 8 and sequelae)
Valerianella locusta	Plant	880.0	12220.0	-0.10826345776234306	--
Phaseolus lunatus	Seed	2600.0	12190.0	0.4323402326407051	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	9830.0	12175.0	0.4291515327049883	--
Arachis hypogaea	Seed	10390.0	12137.0	0.4210734928678391	--
Vigna unguiculata	Seed	11090.0	12111.0	0.41554641297926337	USDA's Ag Handbook 8 and sequelae)
Vicia faba	Seed	2280.0	12000.0	0.3919500334549592	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Sprout Seedling	3560.0	11865.0	-0.4950179055736652	USDA's Ag Handbook 8 and sequelae)
Mentha spicata	Leaf	1710.0	11835.0	-0.1770443857416287	USDA's Ag Handbook 8 and sequelae)
Helianthus annuus	Seed	11170.0	11800.0	0.3494340343120688	USDA's Ag Handbook 8 and sequelae)
Lablab purpureus	Seed	420.0	11775.0	0.3441195344192075	--
Mucuna pruriens	Seed	5475.0	11600.0	0.30691803516917804	--
Vigna radiata	Seed	10500.0	11545.0	0.2952261354048832	USDA's Ag Handbook 8 and sequelae)
Pisum sativum	Seed	2400.0	11353.0	0.2544107762277084	--
Psophocarpus tetragonolobus	Seed	10400.0	11346.0	0.25292271625770724	--
Trigonella foenum-graecum	Seed	8720.0	11220.0	0.22613763679768628	--
Juglans nigra	Seed	10610.0	11095.0	0.1995651373333798	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. viridis l.	Leaf	670.0	10981.0	-0.3756774873368582	--
Cajanus cajan	Seed	8170.0	10870.0	0.1517346382976281	--
Basella alba	Leaf	750.0	10870.0	-0.40149513871516085	--
Brassica oleracea var. sabellica l.	Leaf	1660.0	10680.0	-0.4456875149482915	--
Theobroma cacao	Seed		10400.0	0.051822040311835675	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vigna radiata	Sprout Seedling	990.0	10399.0	-0.8997564719824734	USDA's Ag Handbook 8 and sequelae)
Pistacia vera	Seed	9940.0	10340.0	0.039067240568968556	--
Nigella sativa	Seed	8000.0	10255.0	0.020997940933240138	--
Phaseolus vulgaris	Seed	9050.0	10171.0	0.003141221293226173	USDA's Ag Handbook 8 and sequelae)
Carum carvi	Seed	9140.0	10150.0	-0.0013229586167773184	Revised USDA data received 1993.
Cichorium endivia	Leaf	620.0	9984.0	-0.6075711668338649	--
Prunus dulcis	Seed	9430.0	9864.0	-0.06212083739111058	USDA's Ag Handbook 8 and sequelae)
Cucurbita spp	Fruit	620.0	9810.0	2.3984540914247807	--
Cicer arietinum	Seed	8280.0	9360.0	-0.16926115523119437	USDA's Ag Handbook 8 and sequelae)
Lactuca sativa	Leaf	560.0	9333.0	-0.7589882032958022	--
Psophocarpus tetragonolobus	Tuber	3970.0	9319.0	1.557710779605233	--
Mentha x piperita	Leaf	1950.0	9135.0	-0.8050413111598015	USDA's Ag Handbook 8 and sequelae)
Rehmannia glutinosa	Root	3000.0	9000.0	2.736543589307772	--
Foeniculum vulgare	Fruit	7890.0	8655.0	1.9445066148830974	--
Foeniculum vulgare	Seed	7890.0	8655.0	-0.319130052209883	USDA's Ag Handbook 8 and sequelae)
Papaver bracteatum	Seed	7000.0	8650.0	-0.3201929521884553	--
Phaseolus vulgaris	Fruit	840.0	8633.0	1.9358599962823033	USDA's Ag Handbook 8 and sequelae)
Allium cepa	Bulb	330.0	8597.0	1.0	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Opuntia ficus-indica	Seed		8480.0	-0.35633155145991213	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Sechium edule	Fruit	560.0	8000.0	1.6870731974503679	--
Secale cereale	Seed	7110.0	7985.0	-0.46155864933856583	USDA's Ag Handbook 8 and sequelae)
Artocarpus altilis	Seed	3360.0	7685.0	-0.5253326480529015	USDA's Ag Handbook 8 and sequelae)
Ocimum basilicum	Leaf		7470.0	-1.1923060818343414	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Leaf	1720.0	7430.0	-1.2016097399886847	--
Abelmoschus esculentus	Fruit	730.0	7300.0	1.4119535146978326	USDA's Ag Handbook 8 and sequelae)
Nelumbo nucifera	Seed	2390.0	7242.0	-0.6195055861544037	--
Opuntia ficus-indica	Bud		7180.0		Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Anacardium occidentale	Seed	7020.0	7141.0	-0.6409761657215634	--
Allium sativum var. sativum	Bulb	6.15	7000.0	-1.0	--
Fagopyrum esculentum	Seed		6880.0	-0.6964595446030353	--
Solanum melongena	Fruit	420.0	6815.0	1.2213348773621473	--
Ginkgo biloba	Seed	2400.0	6745.0	-0.7251578440244862	USDA's Ag Handbook 8 and sequelae)
Capsicum frutescens	Fruit	820.0	6691.0	1.172599390703127	USDA's Ag Handbook 8 and sequelae)
Senna obtusifolia	Seed		6500.0	-0.777239942974527	--
Pinus edulis	Seed	6050.0	6430.0	-0.7921205426745387	USDA's Ag Handbook 8 and sequelae)
Lepidium meyenii	Root		6310.0	1.412119976372326	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Bertholletia excelsa	Seed	5700.0	5897.0	-0.9054256803903415	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	5500.0	5870.0	-0.9111653402746318	--
Pisum sativum	Fruit	580.0	5737.0	0.797650565923243	--
Solanum tuberosum	Tuber	1140.0	5700.0	0.16439508227667685	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mangifera indica	Fruit	510.0	5650.0	0.7634571196382851	--
Brassica oleracea var. capitata l.	Leaf	420.0	5615.0	-1.623763228742012	USDA's Ag Handbook 8 and sequelae)
Rosmarinus officinalis	Leaf	1720.0	5335.0	-1.688888835822415	USDA's Ag Handbook 8 and sequelae)
Asimina triloba	Fruit	523.0	5331.0	0.6380811499267729	--
Prunus armeniaca	Fruit	680.0	4980.0	0.5001282804322874	USDA's Ag Handbook 8 and sequelae)
Daucus carota	Root	590.0	4830.0	0.6834408138650919	--
Capsicum annuum	Fruit	350.0	4774.0	0.41916448807939843	--
Apium graveolens	Pt	220.0	4665.0		USDA's Ag Handbook 8 and sequelae)
Persea americana	Fruit	960.0	4625.0	0.36060329846493017	--
Cucumis sativus	Fruit	180.0	4557.0	0.3338773864261125	--
Castanea dentata	Seed	2469.0	4395.0	-1.2247208339534483	--
Beta vulgaris	Root	560.0	4338.0	0.4412042274099843	USDA's Ag Handbook 8 and sequelae)
Brassica rapa	Root	350.0	4305.0	0.42495665148921485	--
Raphanus sativus	Root	220.0	4265.0	0.40526262007010044	--
Lycopersicon esculentum	Fruit	30.0	4132.0	0.16684043618350175	--
Avena sativa	Seed		4000.0	-1.3086899322606569	Jim Duke's personal files.*
Calathea allouia	Root	3545.0	3900.0	0.22555458337068118	--
Citrus sinensis	Fruit	30.0	3775.0	0.02652939797970876	--
Lycium barbarum	Fruit		3700.0	-0.002947710886634307	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Fragaria spp	Fruit	310.0	3677.0	-0.011987357605646181	USDA's Ag Handbook 8 and sequelae)
Castanea mollissima	Seed	2012.0	3581.0	-1.3977609504650124	--
Triticum aestivum	Seed	3036.0	3542.0	-1.406051570297876	--
Pachyrhizus erosus	Tuber	380.0	3500.0	-0.6826053416312601	--
Prunus persica	Fruit	420.0	3402.0	-0.12007009011557077	--
Macadamia spp	Seed	3290.0	3385.0	-1.4394266296250449	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cucurbita pepo	Fruit	280.0	3333.0	-0.14718903027260638	USDA's Ag Handbook 8 and sequelae)
Ipomoea batatas	Root	300.0	3314.0	-0.06296297691934533	--
Cocos nucifera	Seed	1700.0	3205.0	-1.4776910288536462	USDA's Ag Handbook 8 and sequelae)
Brassica napus var. napobrassica	Root	330.0	3190.0	-0.12401447431860009	USDA's Ag Handbook 8 and sequelae)
Castanea sativa	Seed	1380.0	3036.0	-1.5136170481293887	--
Dioscorea pentaphylla	Root	550.0	2965.0	-0.2347934010511188	--
Psidium guajava	Fruit	410.0	2952.0	-0.2969327433136292	USDA's Ag Handbook 8 and sequelae)
Manihot esculenta	Root	870.0	2765.0	-0.333263558146691	--
Citrus reticulata	Fruit	70.0	2740.0	-0.3802547043758256	--
Perideridia gairdneri	Root		2603.0	-0.41302438539410447	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.
Nelumbo nucifera	Rhizome	540.0	2585.0	1.0	--
Helianthus tuberosus	Tuber		2573.0	-1.0395005202506498	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.
Colocasia esculenta	Root	730.0	2485.0	-0.47112177808049205	--
Panax quinquefolius	Plant	209.0	2250.0	-1.5644343500261684	--
Ficus carica	Fruit	450.0	2154.0	-0.6105691816515194	USDA's Ag Handbook 8 and sequelae)
Citrullus lanatus	Fruit		2000.0	-0.6710955118570772	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Prunus domestica	Fruit	290.0	1959.0	-0.6872096647040113	USDA's Ag Handbook 8 and sequelae)
Vaccinium corymbosum	Fruit	280.0	1820.0	-0.7418405731363005	--
Zingiber officinale	Rhizome	310.0	1793.0	-1.0	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Zingiber officinale	Root	310.0	1793.0	-0.8118285216311718	USDA's Ag Handbook 8 and sequelae)
Psidium cattleianum	Fruit	290.0	1500.0	-0.867609570966031	--
Sambucus canadensis	Fruit	300.0	1485.0	-0.8735049927392996	--
Murraya sp	Fruit	510.0	1469.0	-0.8797934426307861	--
Musa x paradisiaca	Fruit	510.0	1469.0	-0.8797934426307861	USDA's Ag Handbook 8 and sequelae)
Vitis vinifera	Fruit	280.0	1440.0	-0.8911912580591054	USDA's Ag Handbook 8 and sequelae)
Phoenix dactylifera	Fruit	80.0	1290.0	-0.9501454757917915	--
Ananas comosus	Fruit	170.0	1259.0	-0.9623293474565466	USDA's Ag Handbook 8 and sequelae)
Carica papaya	Fruit	140.0	1253.0	-0.9646875161658541	USDA's Ag Handbook 8 and sequelae)
Arctium lappa	Root	250.0	1250.0	-1.0791749981456504	USDA's Ag Handbook 8 and sequelae)
Phyllanthus emblica	Fruit	240.0	1190.0	-0.9894482876135823	--
Psoralea esculenta	Root		1139.0	-1.1338259353336928	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	130.0	803.0	-1.1415501693639125	--
Malus domestica	Fruit	70.0	435.0	-1.2861845168681025	USDA's Ag Handbook 8 and sequelae)
Pisum sativum	Shoot		313.0	-1.0	--
Momordica charantia	Seed		157.7	-2.125486049794296	Jim Duke's personal files.
Citrus paradisi	Fruit		90.0	-1.4217792176532806	--
Harpagophytum procumbens	Root		60.0	-1.665072432864305	--
Linum usitatissimum	Seed		0.254	-2.158955919799553	--
Cryptotaenia japonica	Shoot				--
Cryptotaenia japonica	Root				--
Stachys officinalis	Shoot				--
Angelica sinensis	Root				Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Alpinia galanga	Leaf				--
Cannabis sativa	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
Anastatica hierochuntica	Fruit				--
Crocus sativus	Bulb				--
Cocos nucifera	Endosperm				Jim Duke's personal files.
Cocos nucifera	Leaf				Jim Duke's personal files.
Thymus vulgaris	Plant				Stitt, Paul. Why George should eat broccoli.
Artemisia dracunculus	Plant				Stitt, Paul. Why George should eat broccoli.
Astragalus membranaceus	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Momordica charantia	Fruit				Jim Duke's personal files.
Juglans regia	Seed				USDA's Ag Handbook 8 and sequelae)
Althaea officinalis	Root				--
Lycopodium clavatum	Pollen Or Spore				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Allium ampeloprasum	Plant				--
Myrciaria dubia	Fruit				Jim Duke's personal files.
Borago officinalis	Leaf				Jim Duke's personal files.
Urtica dioica	Leaf				Jim Duke's personal files.
Panax ginseng	Root				--
Panax ginseng	Leaf				--
Salvia officinalis	Plant				Stitt, Paul. Why George should eat broccoli.
Canavalia ensiformis	Seed				--
Valeriana officinalis	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Valeriana officinalis	Rhizome				--
Lippia javanica	Plant				Neidlein, R., Staehle, R. 1974. Constituents of Lippia javanica. III. Deutsche Apot. Ztit., 114: 1588.
Dryopteris marginalis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Glycine max	Shoot				--
Camellia sinensis	Plant				--
Angelica archangelica	Leaf				--
Santalum album	Fruit				--
Coriandrum sativum	Fruit				--
Tilia sp.	Flower				--
Lentinus edodes	Fruit				--
Lycium chinense	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.