

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for ALANINE

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Abelmoschus esculentus</i>	Fruit	730.0	7300.0	1.4119535146978326	USDA's Ag Handbook 8 and sequelae)
<i>Acacia farnesiana</i>	Leaf	3440.0	18450.0	1.3615480815328946	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Allium cepa</i>	Bulb	330.0	8597.0	1.0	USDA's Ag Handbook 8 and sequelae)
<i>Allium schoenoprasum</i>	Leaf	1260.0	15830.0	0.7521584724234085	USDA's Ag Handbook 8 and sequelae)
<i>Allium ampeloprasum</i>	Plant				--
<i>Allium sativum</i> var. <i>sativum</i>	Bulb	6.15	7000.0	-1.0	--
<i>Aloe vera</i>	Leaf		15769.0	0.737970393738035	--
<i>Alpinia galanga</i>	Leaf				--
<i>Althaea officinalis</i>	Root				--
<i>Amaranthus</i> sp.	Leaf	1390.0	16722.0	0.9596300492652641	--
<i>Anacardium occidentale</i>	Seed	7020.0	7141.0	-0.6409761657215634	--
<i>Ananas comosus</i>	Fruit	170.0	1259.0	-0.9623293474565466	USDA's Ag Handbook 8 and sequelae)
<i>Anastatica hierochuntica</i>	Fruit				--
<i>Angelica archangelica</i>	Leaf				--
<i>Angelica sinensis</i>	Root				Jim Duke's personal files.
<i>Apium graveolens</i>	Pt	220.0	4665.0		USDA's Ag Handbook 8 and sequelae)
<i>Arachis hypogaea</i>	Seed	10390.0	12137.0	0.4210734928678391	--
<i>Arctium lappa</i>	Root	250.0	1250.0	-1.0791749981456504	USDA's Ag Handbook 8 and sequelae)
<i>Artemisia dracunculus</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Artocarpus altilis</i>	Seed	3360.0	7685.0	-0.5253326480529015	USDA's Ag Handbook 8 and sequelae)
<i>Asimina triloba</i>	Fruit	523.0	5331.0	0.6380811499267729	--
<i>Asparagus officinalis</i>	Seed	1440.0	18581.0	1.7909389852517676	--
<i>Astragalus membranaceus</i>	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Avena sativa</i>	Seed		4000.0	-1.3086899322606569	Jim Duke's personal files.*

Plant	Part	Low PPM	High PPM	StdDev	Reference
Basella alba	Leaf	750.0	10870.0	-0.40149513871516085	--
Bertholletia excelsa	Seed	5700.0	5897.0	-0.9054256803903415	USDA's Ag Handbook 8 and sequelae)
Beta vulgaris	Root	560.0	4338.0	0.4412042274099843	USDA's Ag Handbook 8 and sequelae)
Borago officinalis	Leaf				Jim Duke's personal files.
Brassica oleracea var. italica	Leaf	1180.0	12673.0	0.017867252591863454	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. viridis l.	Leaf	670.0	10981.0	-0.3756774873368582	--
Brassica napus var. napobrassica	Root	330.0	3190.0	-0.12401447431860009	USDA's Ag Handbook 8 and sequelae)
Brassica rapa	Leaf	860.0	18378.0	1.3448014968550768	USDA's Ag Handbook 8 and sequelae)
Brassica rapa	Root	350.0	4305.0	0.42495665148921485	--
Brassica oleracea var. capitata l.	Leaf	420.0	5615.0	-1.623763228742012	USDA's Ag Handbook 8 and sequelae)
Brassica chinensis	Leaf	860.0	18378.0	1.3448014968550768	--
Brassica oleracea var. botrytis l.	Flower	1050.0	13565.0		--
Brassica oleracea var. sabellica l.	Leaf	1660.0	10680.0	-0.4456875149482915	--
Brassica oleracea var. botrytis l.	Leaf	1180.0	12673.0	0.017867252591863454	--
Cajanus cajan	Seed	8170.0	10870.0	0.1517346382976281	--
Calathea allouia	Root	3545.0	3900.0	0.22555458337068118	--
Camellia sinensis	Plant				--
Canavalia ensiformis	Seed				--
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.
Capsicum annum	Fruit	350.0	4774.0	0.41916448807939843	--
Capsicum frutescens	Fruit	820.0	6691.0	1.172599390703127	USDA's Ag Handbook 8 and sequelae)
Carica papaya	Fruit	140.0	1253.0	-0.9646875161658541	USDA's Ag Handbook 8 and sequelae)
Carum carvi	Seed	9140.0	10150.0	-0.0013229586167773184	Revised USDA data received 1993.
Castanea dentata	Seed	2469.0	4395.0	-1.2247208339534483	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Castanea sativa	Seed	1380.0	3036.0	-1.5136170481293887	--
Castanea mollissima	Seed	2012.0	3581.0	-1.3977609504650124	--
Ceratonia siliqua	Seed		19270.0	1.937406602299025	--
Chenopodium album	Plant	3220.0	20511.0	1.1026806613709943	--
Cicer arietinum	Seed	8280.0	9360.0	-0.16926115523119437	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	620.0	9984.0	-0.6075711668338649	--
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.
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.
Citrus reticulata	Fruit	70.0	2740.0	-0.3802547043758256	--
Citrus paradisi	Fruit		90.0	-1.4217792176532806	--
Citrus sinensis	Fruit	30.0	3775.0	0.02652939797970876	--
Cnidioscolus chayamansa	Leaf	2850.0	14260.0	0.3869898898654339	--
Cocos nucifera	Seed	1700.0	3205.0	-1.4776910288536462	USDA's Ag Handbook 8 and sequelae)
Cocos nucifera	Endosperm				Jim Duke's personal files.
Cocos nucifera	Leaf				Jim Duke's personal files.
Colocasia esculenta	Root	730.0	2485.0	-0.47112177808049205	--
Corchorus olitorius	Leaf	2560.0	20840.0	1.917441656254907	--
Coriandrum sativum	Fruit				--
Crocus sativus	Bulb				--
Cryptotaenia japonica	Root				--
Cryptotaenia japonica	Shoot				--
Cucumis sativus	Fruit	180.0	4557.0	0.3338773864261125	--
Cucurbita spp	Fruit	620.0	9810.0	2.3984540914247807	--
Cucurbita pepo	Seed	11580.0	24420.0	3.0321935802284528	--
Cucurbita foetidissima	Seed	10130.0	17100.0	1.4761080115986642	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cucurbita pepo	Fruit	280.0	3333.0	-0.14718903027260638	USDA's Ag Handbook 8 and sequelae)
Daucus carota	Root	590.0	4830.0	0.6834408138650919	--
Dioscorea pentaphylla	Root	550.0	2965.0	-0.2347934010511188	--
Dryopteris marginalis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Fagopyrum esculentum	Seed		6880.0	-0.6964595446030353	--
Ficus carica	Fruit	450.0	2154.0	-0.6105691816515194	USDA's Ag Handbook 8 and sequelae)
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)
Fragaria spp	Fruit	310.0	3677.0	-0.011987357605646181	USDA's Ag Handbook 8 and sequelae)
Ginkgo biloba	Seed	2400.0	6745.0	-0.7251578440244862	USDA's Ag Handbook 8 and sequelae)
Glycine max	Seed	17190.0	18795.0	1.8364311043346604	USDA's Ag Handbook 8 and sequelae)
Glycine max	Shoot				--
Harpagophytum procumbens	Root		60.0	-1.665072432864305	--
Helianthus tuberosus	Tuber		2573.0	-1.0395005202506498	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.
Helianthus annuus	Seed	11170.0	11800.0	0.3494340343120688	USDA's Ag Handbook 8 and sequelae)
Ipomoea aquatica	Leaf	1090.0	14475.0	0.4369970524450292	--
Ipomoea batatas	Root	300.0	3314.0	-0.06296297691934533	--
Juglans cinerea	Seed	13724.0	14194.0	0.8583505440524668	--
Juglans regia	Seed				USDA's Ag Handbook 8 and sequelae)
Juglans nigra	Seed	10610.0	11095.0	0.1995651373333798	USDA's Ag Handbook 8 and sequelae)
Lablab purpureus	Seed	420.0	11775.0	0.3441195344192075	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lactuca sativa	Leaf	560.0	9333.0	-0.7589882032958022	--
Lens culinaris	Sprout Seedling	3560.0	11865.0	-0.4950179055736652	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Seed	11720.0	13200.0	0.6470460283123016	USDA's Ag Handbook 8 and sequelae)
Lentinus edodes	Fruit				--
Lepidium meyenii	Root		6310.0	1.412119976372326	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Linum usitatissimum	Seed		0.254	-2.158955919799553	--
Lippia javanica	Plant				Neidlein, R., Staehle, R. 1974. Constituents of Lippia javanica. III. Deutsche Apot. Ztit., 114: 1588.
Lupinus albus	Seed	12960.0	14470.0	0.9170226228696556	--
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.
Lycium chinense	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Lycopersicon esculentum	Fruit	30.0	4132.0	0.16684043618350175	--
Lycopodium clavatum	Pollen Or Spore				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Macadamia spp	Seed	3290.0	3385.0	-1.4394266296250449	USDA's Ag Handbook 8 and sequelae)
Malus domestica	Fruit	70.0	435.0	-1.2861845168681025	USDA's Ag Handbook 8 and sequelae)
Mangifera indica	Fruit	510.0	5650.0	0.7634571196382851	--
Manihot esculenta	Root	870.0	2765.0	-0.333263558146691	--
Mentha x piperita	Leaf	1950.0	9135.0	-0.8050413111598015	USDA's Ag Handbook 8 and sequelae)
Mentha spicata	Leaf	1710.0	11835.0	-0.1770443857416287	USDA's Ag Handbook 8 and sequelae)
Momordica charantia	Fruit				Jim Duke's personal files.
Momordica charantia	Seed		157.7	-2.125486049794296	Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Moringa oleifera	Shoot	5320.0	24930.0	1.0	USDA's Ag Handbook 8 and sequelae)
Mucuna pruriens	Seed	5475.0	11600.0	0.30691803516917804	--
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)
Myrciaria dubia	Fruit				Jim Duke's personal files.
Nasturtium officinale	Herb	1370.0	27400.0	1.0	USDA's Ag Handbook 8 and sequelae)
Nelumbo nucifera	Seed	2390.0	7242.0	-0.6195055861544037	--
Nelumbo nucifera	Rhizome	540.0	2585.0	1.0	--
Nigella sativa	Seed	8000.0	10255.0	0.020997940933240138	--
Ocimum basilicum	Leaf		7470.0	-1.1923060818343414	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	5500.0	5870.0	-0.9111653402746318	--
Opuntia ficus-indica	Bud		7180.0		Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Opuntia ficus-indica	Seed		8480.0	-0.35633155145991213	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Pachyrhizus erosus	Tuber	380.0	3500.0	-0.6826053416312601	--
Panax quinquefolius	Plant	209.0	2250.0	-1.5644343500261684	--
Panax ginseng	Leaf				--
Panax ginseng	Root				--
Papaver somniferum	Seed	11780.0	12637.0	0.5273634907250652	--
Papaver bracteatum	Seed	7000.0	8650.0	-0.3201929521884553	--
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.
Persea americana	Fruit	960.0	4625.0	0.36060329846493017	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Phaseolus vulgaris	Fruit	840.0	8633.0	1.9358599962823033	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Sprout Seedling	1740.0	18710.0	1.3947743775561388	USDA's Ag Handbook 8 and sequelae)
Phaseolus lunatus	Seed	2600.0	12190.0	0.4323402326407051	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Seed	9050.0	10171.0	0.003141221293226173	USDA's Ag Handbook 8 and sequelae)
Phoenix dactylifera	Fruit	80.0	1290.0	-0.9501454757917915	--
Phyllanthus emblica	Fruit	240.0	1190.0	-0.9894482876135823	--
Pinus pinea	Seed	12540.0	15000.0	1.029690020598315	--
Pinus edulis	Seed	6050.0	6430.0	-0.7921205426745387	USDA's Ag Handbook 8 and sequelae)
Pistacia vera	Seed	9940.0	10340.0	0.039067240568968556	--
Pisum sativum	Fruit	580.0	5737.0	0.797650565923243	--
Pisum sativum	Shoot		313.0	-1.0	--
Pisum sativum	Seed	2400.0	11353.0	0.2544107762277084	--
Portulaca oleracea	Herb	570.0	13400.0	-1.0	--
Prunus dulcis	Seed	9430.0	9864.0	-0.06212083739111058	USDA's Ag Handbook 8 and sequelae)
Prunus domestica	Fruit	290.0	1959.0	-0.6872096647040113	USDA's Ag Handbook 8 and sequelae)
Prunus armeniaca	Fruit	680.0	4980.0	0.5001282804322874	USDA's Ag Handbook 8 and sequelae)
Prunus persica	Fruit	420.0	3402.0	-0.12007009011557077	--
Psidium cattleianum	Fruit	290.0	1500.0	-0.867609570966031	--
Psidium guajava	Fruit	410.0	2952.0	-0.2969327433136292	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Seed	10400.0	11346.0	0.25292271625770724	--
Psophocarpus tetragonolobus	Leaf	1720.0	7430.0	-1.2016097399886847	--
Psophocarpus tetragonolobus	Tuber	3970.0	9319.0	1.557710779605233	--
Psoralea esculenta	Root		1139.0	-1.1338259353336928	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Pyrus communis</i>	Fruit	130.0	803.0	-1.1415501693639125	--
<i>Raphanus sativus</i>	Root	220.0	4265.0	0.40526262007010044	--
<i>Rehmannia glutinosa</i>	Root	3000.0	9000.0	2.736543589307772	--
<i>Rosmarinus officinalis</i>	Leaf	1720.0	5335.0	-1.688888835822415	USDA's Ag Handbook 8 and sequelae)
<i>Salvia officinalis</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Sambucus canadensis</i>	Fruit	300.0	1485.0	-0.8735049927392996	--
<i>Santalum album</i>	Fruit				--
<i>Secale cereale</i>	Seed	7110.0	7985.0	-0.46155864933856583	USDA's Ag Handbook 8 and sequelae)
<i>Sechium edule</i>	Fruit	560.0	8000.0	1.6870731974503679	--
<i>Senna obtusifolia</i>	Seed		6500.0	-0.777239942974527	--
<i>Sesamum indicum</i>	Seed	5510.0	14802.0	0.9875991814468537	--
<i>Sinapis alba</i>	Seed	11870.0	12700.0	0.5407560304550756	--
<i>Solanum tuberosum</i>	Tuber	1140.0	5700.0	0.16439508227667685	--
<i>Solanum melongena</i>	Fruit	420.0	6815.0	1.2213348773621473	--
<i>Spinacia oleracea</i>	Plant	1420.0	16864.0	0.5700171464175169	USDA's Ag Handbook 8 and sequelae)
<i>Stachys officinalis</i>	Shoot				--
<i>Theobroma cacao</i>	Seed		10400.0	0.051822040311835675	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Thymus vulgaris</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Tilia sp.</i>	Flower				--
<i>Trigonella foenum-graecum</i>	Seed	8720.0	11220.0	0.22613763679768628	--
<i>Triticum aestivum</i>	Seed	3036.0	3542.0	-1.406051570297876	--
<i>Urtica dioica</i>	Leaf				Jim Duke's personal files.
<i>Vaccinium corymbosum</i>	Fruit	280.0	1820.0	-0.7418405731363005	--
<i>Valeriana officinalis</i>	Root				--
<i>Valeriana officinalis</i>	Rhizome				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Valerianella locusta	Plant	880.0	12220.0	-0.10826345776234306	--
Vicia faba	Seed	2280.0	12000.0	0.3919500334549592	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	11090.0	12111.0	0.41554641297926337	USDA's Ag Handbook 8 and sequelae)
Vigna angularis	Seed	11600.0	13401.0	0.6897746074509065	--
Vigna unguiculata	Seed	9830.0	12175.0	0.4291515327049883	--
Vigna radiata	Sprout Seedling	990.0	10399.0	-0.8997564719824734	USDA's Ag Handbook 8 and sequelae)
Vigna radiata	Seed	10500.0	11545.0	0.2952261354048832	USDA's Ag Handbook 8 and sequelae)
Vitis vinifera	Fruit	280.0	1440.0	-0.8911912580591054	USDA's Ag Handbook 8 and sequelae)
Zea mays	Seed	2950.0	12272.0	0.44977179228929015	USDA's Ag Handbook 8 and sequelae)
Zingiber officinale	Rhizome	310.0	1793.0	-1.0	--
Zingiber officinale	Root	310.0	1793.0	-0.8118285216311718	USDA's Ag Handbook 8 and sequelae)