

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**List of Plants for STEARIC-ACID**

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Abelmoschus esculentus	Seed	7200	10120	-0.34582040476667064	--
Abrus precatorius	Seed	--	1225	-0.5388117000042002	Wealth of India.
Abutilon theophrasti	Seed	--	1375	-0.5355572093593851	Wealth of India.
Acacia farnesiana	Seed	600	2300	-0.515487850383026	--
Achillea millefolium	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.
Aesculus hippocastanum	Leaf	--	--		Jim Duke's personal files.
Aesculus hippocastanum	Seed	--	1015	-0.5433679869069411	--
Agrimonia eupatoria	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Akebia quinata	Seed	--	--		--
Aleurites fordii	Seed	3900	7800	-0.3961565267398093	--
Aleurites moluccana	Seed	38190	46230	0.43764397646179387	Wealth of India.
Alisma plantago-aquatica	Plant	--	--		--
Alliaria petiolata	Seed	880	880	-0.5462970284872747	--
Allium ampeloprasum	Plant	--	--		--
Allium cepa	Bulb	20	195		--
Allium cepa	Seed Oil	--	35000	-0.6541098145281985	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Allium cepa	Seed	--	6300	-0.4287014331879593	Wealth of India.
Allium schoenoprasum	Leaf	80	1000	0.0297331201637005	USDA's Ag Handbook 8 and sequelae)
Aloe vera	Juice	--	--		Yamaguchi, I., Mega, N., Sanada, H. 1993. Components of the Gel of Aloe vera (L.) Burm. F. Biosci Biotech Biochem 57(8): 1350-1352.
Althaea officinalis	Seed	12415	16685	-0.20338219754526743	Wealth of India.
Ammi visnaga	Plant	--	--		--
Amphicarpaea bracteata	Seed	650	2560	-0.5098467332653467	--
Anacardium occidentale	Seed	17725	102000	1.6476635982040109	--
Anamirta cocculus	Seed	52250	85500	1.2896696272743606	--
Ananas comosus	Fruit	110	815	-0.22517226092311657	USDA's Ag Handbook 8 and sequelae)
Anethum graveolens	Fruit	1000	1083	-0.2073990310361778	--
Anethum graveolens	Seed	1000	1083	-0.541892617814625	USDA's Ag Handbook 8 and sequelae)
Angelica archangelica	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
Angelica archangelica	Fruit	--	--		--
Angelica sinensis	Root	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Annona muricata	Plant	--	--		--
Annona reticulata	Plant	--	--		--
Apium graveolens	Pt	30	560		USDA's Ag Handbook 8 and sequelae)
Apium graveolens	Seed	3100	5000	-0.456907018776356	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Aquilegia vulgaris	Seed	5100	5100	-0.4547373583464793	--
Arachis hypogaea	Seed	10980	13760	-0.26684476511915994	--
Arctium lappa	Plant	--	--		--
Arctium lappa	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Areca catechu	Seed	--	--		--
Arnica montana	Flower	--	--		--
Artemisia capillaris	Essential Oil	--	--		--
Artocarpus altilis	Seed	5100	11660	-0.31240763414656997	USDA's Ag Handbook 8 and sequelae)
Asimina triloba	Fruit	102	2124	-0.1383619701693744	--
Asparagus officinalis	Shoot	30	387	-1.4142135623730951	--
Azadirachta indica	Fruit	79650	81000	5.092538330435788	--
Bactris gasipaes	Fruit	125	650	-0.23611473454753784	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Bactris gasipaes	Seed	9700	9700	-0.3549329785721526	--
Balanites aegyptiacus	Seed	42000	77000	1.1052484907348443	--
Benincasa hispida	Fruit	50	1280	-0.19433438070883846	--
Bertholletia excelsa	Seed	16228	72800	1.0141227526800243	--
Beta vulgaris	Root	10	79	-0.6950094104911273	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Bixa orellana</i>	Seed	200	1275	-0.5377268697892619	Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
<i>Borago officinalis</i>	Seed	6110	18000	-0.17485116289238925	--
<i>Brassica chinensis</i>	Leaf	10	214	-0.48241730258681836	--
<i>Brassica napus</i> var. <i>napobrassica</i>	Root	30	290	-0.18860255369586548	USDA's Ag Handbook 8 and sequelae)
<i>Brassica nigra</i>	Leaf	20	294	-0.43029003309567143	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i>	Stem	10	110		--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Leaf	70	752	-0.13186141525885503	--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Flower	30	390	0.6447612226140537	--
<i>Brassica oleracea</i> var. <i>capitata</i> l.	Leaf	10	134	-0.5345445720779654	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i> var. <i>gemmifera</i>	Leaf	30	214	-0.48241730258681836	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i> var. <i>italica</i>	Leaf	70	752	-0.13186141525885503	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i> var. <i>sabellica</i> l.	Leaf	40	260	-0.4524441226294089	--
<i>Brassica oleracea</i> var. <i>viridis</i> l.	Plant	--	--		--
<i>Brassica rapa</i>	Root	10	120	-0.5966080781280669	--
<i>Brassica rapa</i>	Leaf	10	214	-0.48241730258681836	USDA's Ag Handbook 8 and sequelae)
<i>Bryonia alba</i>	Root	--	--		--
<i>Cajanus cajan</i>	Seed	240	733	-0.5494864293191933	--
<i>Camellia sinensis</i>	Seed	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Canarium indicum	Seed	74297	74297	1.046602569315278	--
Capparis spinosa	Flower	348	348	0.1338183669576338	--
Capparis spinosa	Seed	11060	16200	-0.21390505063016926	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Capsicum annuum	Fruit	160	2180	-0.1346481609392678	USDA's Ag Handbook 8 and sequelae)
Capsicum annuum	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Capsicum frutescens	Fruit	30	245	-0.2629735334438446	USDA's Ag Handbook 8 and sequelae)
Capsicum frutescens	Seed	--	--		--
Carapa guianensis	Seed	220000	260000	5.0757270774091445	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Carica papaya	Fruit	20	179	-0.2673505228936131	--
Carica papaya	Seed	12650	13282	-0.2772157419739704	--
Carica papaya	Seed Oil	--	50000	-0.5312228391740013	Jim Duke's personal files.
Carica papaya	Leaf	--	--		Jim Duke's personal files.
Carica papaya	Flower	--	--		Jim Duke's personal files.
Carthamus tinctorius	Seed	2000	6260	-0.42956929735990995	--
Carum carvi	Plant	1100	1221	-0.31662981705011717	--
Carum carvi	Seed	1000	1221	-0.5263361525324093	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Carya illinoensis	Leaf	--	--		--
Cassia tora	Seed	2508	5624	-0.4433683376939256	--
Caulophyllum thalictroides	Root	--	--		Jim Duke's personal files.
Cedrus deodora	Seed	37995	37995	0.2589724400614503	--
Ceiba pentandra	Seed	4000	32000	0.12890129729034414	--
Centaurea calcitrapa	Plant	--	--		--
Centaurium erythraea	Plant	--	--		--
Centella asiatica	Plant	--	--		--
Ceratonia siliqua	Seed	200	1820	-0.525902220446434	Wealth of India.
Chamaelirium luteum	Rhizome	--	--		Jim Duke's personal files.
Chrysanthemum x morifolium	Flower	--	--		Wealth of India.
Cicer arietinum	Seed	850	960	-0.5445613001433733	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	20	322	-0.41204548877377	--
Cichorium intybus	Leaf	10	204	-0.48893321127321177	USDA's Ag Handbook 8 and sequelae)
Cichorium intybus	Root	20	100	-0.6446087280612671	USDA's Ag Handbook 8 and sequelae)
Cichorium intybus	Seed	--	--		--
Cichorium intybus	Plant	--	--		--
Citrullus colocynthis	Seed	--	--		--
Citrullus lanatus	Seed	12200	66000	0.8665858434484109	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrullus lanatus	Cotyledon	--	59100	-0.5870403836004546	--
Citrus aurantiifolia	Fruit	10	85	-0.2735844169584349	--
Citrus paradisi	Fruit	10	110	-0.27192646640928014	USDA's Ag Handbook 8 and sequelae)
Citrus reticulata	Fruit	10	80	-0.27391600706826585	USDA's Ag Handbook 8 and sequelae)
Citrus reticulata	Seed Oil	--	--		--
Cocos nucifera	Seed	584	23008	0.14430588634246846	--
Coffea arabica	Seed	5920	12800	-0.28767350524597596	--
Coix lacryma-jobi	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Colocasia esculenta	Plant	200	200	-0.7284502542579766	--
Colocasia esculenta	Root	60	205	-0.39260531591196624	--
Corchorus olitorius	Leaf	60	490	-0.3025782228423614	--
Corchorus olitorius	Seed	4180	5475	-0.4466011317344418	--
Coriandrum sativum	Fruit	1100	1207	-0.1991755963123703	USDA's Ag Handbook 8 and sequelae)
Coriandrum sativum	Seed Essent. Oil	--	2000		--
Cornus mas	Seed Oil	--	--		Hohn, M. E., Meinschein, W. G. 1976. Seed Oil Fatty Acids: Evolutionary Significance in the Nyssaceae and Cornaceae. Biochem. Syst. Ecol., 4: 193-199.
Corylus avellana	Seed	8000	10400	-0.33974535556301594	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Crataegus laevigata</i>	Bark	--	--		--
<i>Crataegus rhipidophylla</i>	Bark	--	--		--
<i>Crocus sativus</i>	Silk Stigma Style	--	--		--
<i>Croton tiglium</i>	Seed	900	1500	-0.5328451338220394	--
<i>Cryptostegia grandifolia</i>	Seed	10240	10240	-0.3432168122508186	--
<i>Cucumis melo</i>	Cotyledon	10100	61400	-0.5578470239835672	--
<i>Cucumis melo</i>	Seed	10080	35145	0.19713711780996532	--
<i>Cucumis sativus</i>	Cotyledon	28800	59100	-0.5870403836004546	--
<i>Cucumis sativus</i>	Fruit	30	759	-0.22888607015322318	--
<i>Cucumis sativus</i>	Seed	11100	69785	0.9487074907192428	--
<i>Cucurbita foetidissima</i>	Seed	2430	28475	0.052420767137191626	--
<i>Cucurbita maxima</i>	Seed	21450	21450	-0.09999787806164424	--
<i>Cucurbita pepo</i>	Flower	20	410	0.8880673443552061	USDA's Ag Handbook 8 and sequelae)
<i>Cucurbita pepo</i>	Fruit	30	357	-0.2555459149836314	USDA's Ag Handbook 8 and sequelae)
<i>Cucurbita pepo</i>	Seed	22670	30200	0.10091267774493513	--
<i>Cucurbita spp</i>	Fruit	40	635	-0.2371095048770307	--
<i>Cyamopsis tetragonoloba</i>	Seed Oil	--	58000	-0.46568311898509607	Varade, P. B., Misra, B. K., Sikka, K. C., Singh, S. P. 1984. Nutritive Assessment of Guar Oil ( <i>Cyamopsis tetragonoloba</i> L. Taub). J Agr Food Chem, 32(5): 1073-1075.
<i>Cynara cardunculus</i>	Flower	30	200	-1.6666469339268937	USDA's Ag Handbook 8 and sequelae)



Plant	Part	Low PPM	High PPM	StdDev	Reference
Cyperus rotundus	Rhizome	--	--		--
Datura stramonium	Plant	--	--		--
Daucus carota	Root	10	80	-0.6926093779944673	--
Daucus carota	Seed	285	1240	-0.5384862509397187	--
Dioscorea pentaphylla	Root	20	108	-0.625408468087987	--
Dipsacus fullonum	Seed	4200	5660	-0.44258725993917	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Dipteryx odorata	Seed	1425	1425	-0.5344723791444468	--
Dodonaea viscosa	Seed	7490	31400	0.11588333471108414	--
Elaeagnus angustifolia	Seed	--	235	-0.5602913382599791	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
Elaeis guineensis	Fruit	4600	69615	4.33750765035072	--
Elettaria cardamomum	Seed	1830	18300	-0.16834218160275924	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Elettaria cardamomum	Fruit	600	650	-0.23611473454753784	Revised USDA data received 1993.
Elettaria cardamomum	Seed Oil	--	--		--
Eleutherococcus senticosus	Rhizome	--	--		--
Eruca sativa	Seed	2900	6600	-0.4221924518983293	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Erythrina crista-galli	Seed	6500	6500	-0.424362112328206	--
Eucommia ulmoides	Seed Oil	--	25000	-0.73603446476433	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Fagopyrum esculentum	Seed	460	460	-0.5554096022927567	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Fagopyrum esculentum	Pollen Or Spore	--	--		--
Ficus carica	Fruit	120	574	-0.24115490421696825	USDA's Ag Handbook 8 and sequelae)
Ficus carica	Seed	5232	6540	-0.4234942481562553	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Fragaria spp	Fruit	40	475	-0.247720388391621	USDA's Ag Handbook 8 and sequelae)
Fucus vesiculosus	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Ganoderma lucidum	Fruit	--	--		--
Ganoderma lucidum	Tissue Culture	--	--		--
Ganoderma lucidum	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ginkgo biloba	Seed	160	357	-0.5576443525355296	USDA's Ag Handbook 8 and sequelae)
Ginkgo biloba	Pollen Or Spore	--	--		Jim Duke's personal files.
Glycine max	Seed	4320	7785	-0.3964819758042908	--
Gossypium sp	Seed	1760	5589	-0.4441277188443824	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Harpagophytum procumbens	Tuber	--	--		--
Helianthus annuus	Seed	9000	28000	0.04211488009527745	--
Hibiscus sabdariffa	Seed	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Hippophae rhamnoides	Bark	5720	5720		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hippophae rhamnoides	Fruit	1040	1040	-0.21025070598072393	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hippophae rhamnoides	Seed	6610	6610	-0.4219754858553416	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Holarrhena pubescens	Seed	12920	12920	-0.28506991273012394	--
Hordeum vulgare	Seed	130	1430	-0.534363896122953	Jim Duke's personal files.*
Hordeum vulgare	Leaf	--	--		--
Houttuynia cordata	Shoot	--	--		--
Houttuynia cordata	Root	--	--		--
Hyoscyamus niger	Seed	4000	6224	-0.43035037511466556	--
Hypericum perforatum	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ilex paraguariensis	Leaf	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Ipomoea batatas</i>	Root	60	221	-0.35420479596540605	--
<i>Iris versicolor</i>	Rhizome	--	--		--
<i>Jatropha curcas</i>	Seed	26400	87360	1.3300253112700666	--
<i>Juglans cinerea</i>	Seed	4250	4397	-0.46999007116851227	--
<i>Juglans nigra</i>	Seed Oil	--	--		--
<i>Juglans nigra</i>	Seed	13940	14575	-0.2491620326156651	USDA's Ag Handbook 8 and sequelae)
<i>Juglans regia</i>	Seed	2000	21030	-0.10911045186712624	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Juniperus communis</i>	Plant	--	--		--
<i>Lablab purpureus</i>	Seed	90	742	-0.5492911598805045	--
<i>Lactuca sativa</i>	Leaf	40	667	-0.18724663909319866	--
<i>Lactuca scariola</i>	Seed	13165	13165	-0.2797542446769261	--
<i>Lagenaria siceraria</i>	Fruit	--	--		--
<i>Lawsonia inermis</i>	Seed	8835	19285	-0.1469710263684741	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Lawsonia inermis</i>	Oil	157800	158000		--
<i>Lens culinaris</i>	Seed	140	160	-0.5619185835823867	USDA's Ag Handbook 8 and sequelae)
<i>Lens culinaris</i>	Sprout Seedling	60	200	-1.397001397002096	USDA's Ag Handbook 8 and sequelae)
<i>Leonotis nepetaefolia</i>	Seed	3360	4560	-0.4664535246678133	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lepidium sativum	Leaf	70	660	-0.19180777517367403	--
Lepidium sativum	Seed	9560	15325	-0.2328895793915901	--
Ligustrum japonicum	Seed	--	--		--
Linum usitatissimum	Seed	13595	16545	-0.20641972214709475	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
Linum usitatissimum	Seed Oil	--	81000	-0.2772564234419937	--
Lobelia inflata	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Luffa aegyptiaca	Fruit	50	1000	-0.21290342685937153	--
Luffa aegyptiaca	Seed	36000	81000	1.192034907929911	--
Lupinus albus	Seed	3160	3525	-0.4889095101170368	--
Lycopersicon esculentum	Fruit	80	1322	-0.19154902378625838	--
Macadamia spp	Seed	23560	27810	0.03799252527851179	--
Malus domestica	Fruit	70	435	-0.25037310927026857	--
Malus domestica	Seed	--	--		Fathy, M. M., Abd El Megid, R. M. 1995. A Comparative Study of the Lipid Contents and the Antimicrobial Activity of Certain Rosaceous Seeds. Zagazig J Pharm Sci, 4(2): 121-127.
Mangifera indica	Fruit	30	164	-0.26834529322310596	--
Manihot esculenta	Root	70	220	-0.3566048284620661	--
Medicago sativa	Seed Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Melia azedarach	Seed	22800	22800	-0.07070746225830923	--
Mentha spicata	Leaf	200	1385	0.28059560458984517	USDA's Ag Handbook 8 and sequelae)
Mentha x piperita	Leaf	250	1170	0.14050356783238777	--
Mimosa pudica	Seed	2135	15130	-0.2371204172298496	--
Momordica charantia	Seed	29800	147800	2.641368075087524	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Momordica charantia	Seed Oil	--	--		Jim Duke's personal files.
Momordica charantia	Fruit	--	--		Jim Duke's personal files.
Momordica charantia	Cotyledon	121200	241800	1.7319277911844766	Jim Duke's personal files.
Moringa oleifera	Seed	6000	26745	0.7364062176558109	--
Morus alba	Seed	--	--		--
Mucuna pruriens	Seed	390	12475	-0.29472490164307513	--
Murraya sp	Plant	--	--		--
Musa x paradisiaca	Fruit	60	233	-0.26376934970743887	USDA's Ag Handbook 8 and sequelae)
Musa x paradisiaca	Plant	--	--		--
Myrica cerifera	Fruit	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Myristica fragrans	Seed	--	--		--
Myristica fragrans	Seed Essent. Oil	--	--		--
Nardostachys chinensis	Root	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nelumbo nucifera	Rhizome	10	50	-1	--
Nepeta cataria	Seed Oil	--	--		--
Nerium oleander	Flower	--	--		--
Nigella sativa	Seed	8722	10192	-0.3442582492571594	--
Nigella sativa	Seed Oil	18100	60400	-0.4460212029284245	--
Ocimum basilicum	Seed	--	485	-0.5548671871852875	--
Ocimum sanctum	Seed	3255	3255	-0.4947675932777038	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ocimum tenuiflorum	Seed	3255	3255	-0.4947675932777038	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Oenothera biennis	Seed	1875	12150	-0.30177629804017425	--
Oenothera biennis	Seed Oil	5000	19000	-0.7851892549060089	--
Olea europaea	Fruit	2100	5600	0.09215947418510027	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Opuntia ficus-indica	Seed	3130	10555	-0.3363823818967071	--
Opuntia ficus-indica	Seed Oil	--	58000	-0.46568311898509607	--
Opuntia ficus-indica	Flower	--	--		--
Origanum vulgare	Plant	5800	6247	1.7106077122414611	USDA's Ag Handbook 8 and sequelae)
Oryza sativa	Seed	150	270	-0.5595319571095223	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pachira aquatica	Seed	0	17400	-0.18786912547164925	--
Pachyrhizus erosus	Seed	--	--		--
Panax ginseng	Root	--	--		--
Panax quinquefolius	Plant	--	--		--
Papaver bracteatum	Seed	9900	12000	-0.3050307886849893	--
Papaver somniferum	Seed	5890	8036	-0.39103612812530036	--
Papaver somniferum	Seed Oil	--	--		--
Papaver somniferum	Latex Exudate	--	--		--
Passiflora edulis	Seed	4050	4050	-0.47751879286018434	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Pastinaca sativa	Root	140	685	0.7594102824848379	--
Persea americana	Fruit	120	4320	0.007272406068377717	--
Petasites hybridus	Root	--	--		--
Petiveria alliacea	Leaf	--	--		Germosen-Robineau, L. (Ed.) 1997. Farmacopea Vegetal Caribena. Endacaribe, Tramil. Ediciones Emile Desormeaux, Martinique F.W.I. 360 pp.
Petroselinum crispum	Seed	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Phaseolus lunatus	Seed	220	739	-0.5493562496934008	--
Phaseolus vulgaris	Fruit	40	411	-0.25196474179745715	USDA's Ag Handbook 8 and sequelae)



Plant	Part	Low PPM	High PPM	StdDev	Reference
Phaseolus vulgaris	Seed	220	247	-0.5600309790083939	USDA's Ag Handbook 8 and sequelae)
Phaseolus vulgaris	Sprout Seedling	90	968	0.8890008890013331	USDA's Ag Handbook 8 and sequelae)
Phoenix dactylifera	Seed	3000	7000	-0.3484239972825226	--
Phyllanthus emblica	Seed	3440	3440	-0.49075372148243196	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Phyllanthus emblica	Seed Oil	--	--		--
Physalis peruviana	Fruit	3400	3400	-0.053740174140516614	--
Physostigma venenosum	Seed	--	--		--
Pinellia ternata	Tuber	--	--		--
Pinus edulis	Seed	20110	21400	-0.10108270827658257	USDA's Ag Handbook 8 and sequelae)
Pinus gerardiana	Seed	3840	6485	-0.4246875613926875	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pinus pinea	Seed	16720	17920	-0.1765868912362906	USDA's Ag Handbook 8 and sequelae)
Pinus walliciana	Seed	13130	13130	-0.28051362582738293	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Piper nigrum	Fruit	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp

Plant	Part	Low PPM	High PPM	StdDev	Reference
Piscidia piscipula	Plant	--	--		--
Pistacia vera	Seed	6280	8960	-0.37098846575323996	--
Pisum sativum	Fruit	30	297	-0.25952499630160275	--
Pisum sativum	Seed	70	331	-0.5582084642472975	--
Plantago asiatica	Seed	--	--		--
Plantago ovata	Seed	1300	3450	-0.4905367554394443	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Plantago ovata	Seed Coat	--	--		--
Plantago psyllium	Seed	--	--		--
Polypodium vulgare	Rhizome	--	--		--
Portulaca oleracea	Seed	6438	6438	-0.4257073017947295	--
Prunella vulgaris	Leaf	--	--		--
Prunus armeniaca	Fruit	30	220	-0.26463148399299935	USDA's Ag Handbook 8 and sequelae)
Prunus cerasus	Fruit	160	1152	-0.2028230875205107	--
Prunus cerasus	Seed	8700	11600	-0.31370943040449595	--
Prunus domestica	Fruit	90	608	-0.2389000914701178	USDA's Ag Handbook 8 and sequelae)
Prunus domestica	Seed	16380	17640	-0.18266194043994524	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prunus dulcis	Seed	10210	10680	-0.3336703063593613	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Prunus laurocerasus	Seed	425	510	-0.5543247720778183	--
Prunus persica	Fruit	10	80	-0.27391600706826585	--
Prunus persica	Seed	--	--		--
Psidium cattleianum	Fruit	160	825	-0.22450908070345468	--
Psidium guajava	Fruit	160	1152	-0.2028230875205107	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Leaf	440	1901	0.616816492807743	--
Psophocarpus tetragonolobus	Seed	7450	8128	-0.38904004052981384	--
Psophocarpus tetragonolobus	Tuber	360	845	1	--
Pueraria montana	Stem	--	--		--
Punica granatum	Seed	--	--		--
Quisqualis indica	Fruit	--	--		--
Quisqualis indica	Seed	20930	24570	-0.032304472649492225	--
Raphanus sativus	Root	40	775	0.9754132071842386	--
Ribes nigrum	Fruit	70	388	-0.2534900563026795	USDA's Ag Handbook 8 and sequelae)
Ribes rubrum	Fruit	30	187	-0.2668199787178836	--
Ribes uva-crispa	Fruit	130	1071	-0.20819484729977206	--
Robinia pseudoacacia	Seed	700	3125	-0.4975881518365435	--
Rosa canina	Seed Oil	--	--		--
Rosa rubiginosa	Seed Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus officinalis	Leaf	2310	7165	4.046790825325211	USDA's Ag Handbook 8 and sequelae)
Rubus idaeus	Fruit	130	970	-0.2148929675183572	Revised USDA data received 1993.
Ruta graveolens	Seed Oil	--	--		--
Salvia officinalis	Seed	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Salvia officinalis	Fruit Essent. Oil	--	--		--
Salvia sclarea	Seed	8568	8568	-0.3794935346383565	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Salvia sp.	Seed	6610	58320	0.6999559224338829	--
Sambucus canadensis	Seed	5628	8960	-0.37098846575323996	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Sambucus nigra	Plant	--	--		--
Sambucus nigra	Leaf	--	--		--
Sambucus nigra	Flower	--	--		--
Satureja hortensis	Seed	8400	8400	-0.3831385641605493	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Schisandra chinensis	Seed	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Scutellaria baicalensis	Root Essent. Oil	--	--		--
Secale cereale	Seed	90	100	-0.5632203798403127	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Senna obtusifolia	Seed	3550	3550	-0.48836709500956765	--
Serenoa repens	Seed	--	--		--
Serenoa repens	Fruit	720	2305	-0.12635840819349412	--
Sesamum indicum	Seed	11808	32832	0.146952872066918	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Sesamum indicum	Seed Oil	--	60000	-0.44929818893786977	--
Silybum marianum	Plant	--	--		--
Silybum marianum	Seed Oil	--	178000	0.5174126838484817	--
Silybum marianum	Seed	--	--		--
Simarouba glauca	Seed	169600	185220	3.453255007947373	--
Sinapis alba	Seed	2340	2846	-0.5036415044358994	--
Skimmia arborescens	Seed	4000	4000	-0.47860362307512266	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Solanum melongena	Fruit	50	620	-0.23810427520652352	--
Solanum nigrum	Seed	4085	4085	-0.47675941170972747	--
Solanum tuberosum	Tuber	40	190	-1	--
Spartium junceum	Seed	--	--		--
Spinacia oleracea	Plant	7	356	-0.6655276409333674	--
Spinacia oleracea	Leaf	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Stellaria media	Plant	--	--		--
Sterculia urens	Seed	4020	5226	-0.4520035862048347	--
Strychnos nux-vomica	Seed	2640	3300	-0.49379124608425934	--
Swertia chirata	Plant	--	--		--
Tagetes minuta	Seed Oil	--	--		--
Tamarindus indica	Fruit	600	874	-0.2212594976271114	USDA's Ag Handbook 8 and sequelae)
Tamarindus indica	Seed Oil	--	--		--
Taraxacum officinale	Pollen Or Spore	--	--		--
Tecoma stans	Seed	600	690	-0.5504193833040403	--
Terminalia bellirica	Seed	40000	112000	1.8646296411916774	--
Terminalia catappa	Seed	21600	40525	0.31386484893733	--
Terminalia chebula	Seed Oil	--	--		Miglani, B. D., Chawla, A. S. 1974. Chemical Investigation of the Oil of Terminaliaa chebula. J. Inst. Chem. (Calcutta) 46: 189-.
Terminalia pallida	Seed Oil	--	92000	-0.18713930818224905	Gunasekar, D., Sreeramulu, K., Rao, K. V. 1992. Fatty Acid Composition of the Seed Oil of Terminalia pallida. Asian J. Chem. 4 2: 400-401.
Tetragonia tetragonioides	Leaf	20	335	-0.40357480748145863	--
Teucrium polium	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Theobroma angustifolium	Seed	43700	115050	1.9308042843029158	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Theobroma bicolor	Seed	172655	182375	3.391528168717382	--
Theobroma cacao	Plant	--	--		--
Theobroma cacao	Seed	111300	215450	4.109143355899089	--
Thevetia neriifolia	Seed	59000	70800	0.970729544082491	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thevetia peruviana	Seed	59000	79060	1.1499434955903036	--
Tribulus terrestris	Fruit	2800	4000	-0.01394936096080292	--
Trichosanthes anguina	Seed	30500	41100	0.3263403964091208	--
Trifolium pratense	Pollen Or Spore	--	--		--
Trigonella foenum-graecum	Seed	--	--		--
Trigonella foenum-graecum	Seed Oil	--	107400	-0.06097534681860657	--
Triticum aestivum	Plant	--	--		--
Tussilago farfara	Flower	--	--		--
Urtica dioica	Root	--	--		Jim Duke's personal files.
Valeriana officinalis	Root	--	--		--
Vanilla planifolia	Fruit	--	39	-0.2766350459688796	--
Verbascum thapsus	Seed	--	164000	2.9928530647275444	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Verbascum thapsus	Seed Oil	--	325000	1.7217050423196145	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vicia faba	Seed	170	895	-0.5459715794227932	USDA's Ag Handbook 8 and sequelae)
Vigna aconitifolia	Seed	510	565	-0.5531314588413861	--
Vigna angularis	Seed	662	762	-0.5488572277945292	--
Vigna mungo	Seed	387	1075	-0.5420661906490152	--
Vigna radiata	Seed	710	1170	-0.5400050132406323	--
Vigna radiata	Sprout Seedling	80	840	0.5080005080007616	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Fruit	130	1070	-0.20826116532173825	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	200	218	-0.5606601805330582	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Shoot	80	783	0.7071067811865476	--
Vigna unguiculata	Seed	270	813	-0.547750700975292	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Shoot	80	783	0.7071067811865476	USDA's Ag Handbook 8 and sequelae)
Vitellaria paradoxa	Seed	215660	233020	4.49035269342842	--
Vitellaria paradoxa	Seed Oil	--	459000	2.8194953554837765	Adomako, D. 1977. Fatty Acid Composition and Characteristics of Pentadesma Butyracea Fat Extracted From Ghana Seeds. J. Sci. Food Agr. 28: 384-386.
Vitis vinifera	Seed	1440	4800	-0.4612463396361093	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vitis vinifera	Seed Oil	--	--		--
Withania somnifera	Plant	--	--		--
Zea mays	Seed	110	457	-0.5554746921056529	USDA's Ag Handbook 8 and sequelae)



<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Zea mays	Silk Stigma Style	--	--		--
Zingiber officinale	Rhizome	170	1540	1	--
Zingiber officinale	Root	170	925	2.8114380671291452	USDA's Ag Handbook 8 and sequelae)