

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for TANNIN

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rhizophora mangle	Bark	10000.0	520000.0	3.314640655578367	--
Ceratonia siliqua	Bark	12000.0	500000.0	3.1396861512455287	--
Eucalyptus citriodora	Resin, Exudate, Sap		482000.0	1.4131379750921393	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Arbutus unedo	Bark		450000.0	2.7022998904134328	--
Terminalia chebula	Fruit	1090.0	355000.0	2.513227153575772	--
Rumex hymenosepalus	Plant	180000.0	350000.0	3.8887786605438155	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Acacia nilotica	Fruit		349500.0	2.460165206941449	--
Punica granatum	Pericarp	104000.0	336000.0	1.0	--
Anogeissus latifolia	Leaf	322000.0	329000.0	2.6670661946712415	--
Psidium guajava	Bark	110000.0	300000.0	1.3901411079171442	--
Byrsonima crassifolia	Bark	172500.0	282600.0	1.2379306891475748	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Juglans nigra	Pericarp	33600.0	280000.0	-1.0	--
Rhus coriaria	Leaf	210000.0	280000.0	2.068876495301219	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Punica granatum	Root Bark	20000.0	280000.0	0.8535499454737059	--
Phyllanthus emblica	Fruit		280000.0	1.7896551540168204	--
Camellia sinensis	Leaf	33800.0	270000.0	1.946796964817541	--
Rhus glabra	Leaf		270000.0	1.946796964817541	--
Simarouba amara	Bark	200000.0	270000.0	1.1277093514178864	--
Melia azedarach	Bark	180000.0	260000.0	1.0402320992514673	--
Areca catechu	Seed	150000.0	250000.0	2.1109169422359373	--
Eucalyptus cornea	Plant		250000.0	2.428830182836332	--
Punica granatum	Stem Bark	100000.0	250000.0	1.3814745788840543	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Tsuga canadensis</i>	Root Bark		245000.0	0.54974403267798	--
<i>Fallopia japonica</i>	Leaf	170000.0	240000.0	1.5805583733665067	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Schinus molle</i>	Bark		230000.0	0.7778003427522096	--
<i>Terminalia bellirica</i>	Fruit	170000.0	214000.0	1.152911794404943	--
<i>Agrimonia eupatoria</i>	Shoot	30000.0	210000.0	1.6607008042164362	--
<i>Vaccinium myrtillus</i>	Leaf	60000.0	200000.0	1.0922402514317946	--
<i>Acacia nilotica</i>	Resin, Exudate, Sap	170000.0	200000.0	-0.6588112916807376	--
<i>Sclerocarya caffra</i>	Leaf		200000.0	1.0922402514317946	--
<i>Quercus robur</i>	Bark	80000.0	200000.0	0.5153685862529519	--
<i>Vaccinium vitis-idaea</i>	Leaf	60000.0	200000.0	1.0922402514317946	--
<i>Terminalia catappa</i>	Fruit	60000.0	200000.0	1.0178450211539385	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Alnus glutinosa</i>	Bark		200000.0	0.5153685862529519	--
<i>Geranium thunbergii</i>	Leaf		200000.0	1.0922402514317946	--
<i>Coriaria myrtifolia</i>	Leaf	100000.0	200000.0	1.0922402514317946	--
<i>Aegle marmelos</i>	Petiole		200000.0		Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Arctostaphylos uva-ursi</i>	Plant	60000.0	200000.0	1.69885594398259	--
<i>Quercus alba</i>	Bark	78500.0	200000.0	0.5153685862529519	--
<i>Jatropha curcas</i>	Resin, Exudate, Sap	116000.0	187000.0	-0.7543266834114022	--
<i>Tussilago farfara</i>	Leaf		170000.0	0.7260016599807604	--
<i>Sanguisorba officinalis</i>	Hs		170000.0		--
<i>Sanguisorba officinalis</i>	Plant		170000.0	1.260871400670345	--
<i>Pinus sylvestris</i>	Bark		169000.0	0.2441891045370524	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Phyllanthus emblica	Bark	80000.0	166400.0	0.22144501897378338	--
Arbutus unedo	Leaf		160000.0	0.6039221294970823	--
Quercus rubra	Bark		160000.0	0.1654595775872751	--
Ilex paraguariensis	Leaf	40000.0	160000.0	0.6039221294970823	--
Terminalia arjuna	Bark		158000.0	0.14796412715399127	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Tsuga canadensis	Bark	100000.0	150500.0	0.08235618802917684	--
Anogeissus latifolia	Bark	100000.0	150000.0	0.07798232542085588	--
Mangifera indica	Flower		150000.0	1.0420282434519452	--
Stachys officinalis	Plant	25200.0	150000.0	0.9688817051288484	--
Ajuga reptans	Plant		150000.0	0.9688817051288484	--
Hamelia patens	Bark		150000.0	0.07798232542085588	--
Quillaja saponaria	Bark		150000.0	0.07798232542085588	--
Juglans nigra	Fruit		147000.0	0.5065208081322793	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rumex acetosella	Root	80000.0	140000.0	1.9797402259493415	--
Myrtus communis	Plant		140000.0	0.8228868573581	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Lythrum salicaria	Flower		137000.0	0.8221196855805931	--
Urtica dioica	Leaf	59700.0	133000.0	0.27430739719115166	Jim Duke's personal files.
Terminalia catappa	Bark		130000.0	-0.09697217891198255	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Fallopia japonica	Stem	30000.0	130000.0	1.2185893134769075	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Juglans regia	Fruit		122000.0	0.26533014161262874	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vaccinium myrtillus	Fruit	50000.0	120000.0	0.2460348882910567	--
Rubus idaeus	Leaf	16900.0	120000.0	0.11560400756237017	--
Lythrum salicaria	Leaf		120000.0	0.11560400756237017	--
Lavandula angustifolia	Flower	50000.0	120000.0	0.5345469560565174	--
Lavandula angustifolia	Plant		120000.0	0.5308971618166033	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Salix alba	Bark	20160.0	120000.0	-0.18444943107840175	--
Atropa bella-donna	Root		120000.0	1.3566088761423356	--
Terminalia arjuna	Fruit	70000.0	120000.0	0.2460348882910567	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ailanthus altissima	Leaf		120000.0	0.11560400756237017	--
Rhododendron ponticum	Leaf	50000.0	120000.0	0.11560400756237017	--
Castanea sativa	Bark	40000.0	120000.0	-0.18444943107840175	--
Paullinia cupana	Seed	50000.0	120000.0	0.49709318567481553	--
Pistacia lentiscus	Leaf		113000.0	0.03014833622379554	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Albizia lebeck	Bark	70000.0	110000.0	-0.271926683244821	Wealth of India.
Oenothera biennis	Herb		110000.0		--
Punica granatum	Leaf		110000.0	-0.006475522921307877	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Juglans regia	Leaf	90000.0	110000.0	-0.006475522921307877	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ceiba pentandra	Bark		108200.0	-0.28767258863477646	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Prunella vulgaris</i>	Plant	45000.0	105800.0	0.3235844779821407	--
<i>Lythrum salicaria</i>	Stem		105000.0	0.6451355188995392	--
<i>Pinus kesiya</i>	Bark	70000.0	100000.0	-0.3594039354112402	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Maclura pomifera</i>	Wood	90000.0	100000.0	1.2399802396022128	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Sclerocarya caffra</i>	Bark	35000.0	100000.0	-0.3594039354112402	--
<i>Solanum nigrum</i>	Plant	70000.0	100000.0	0.23890746627510662	--
<i>Thymus vulgaris</i>	Leaf	16800.0	100000.0	-0.12855505340498594	--
<i>Pinus insularis</i>	Bark	70000.0	100000.0	-0.3594039354112402	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Ligustrum vulgare</i>	Leaf	60000.0	100000.0	-0.12855505340498594	--
<i>Psidium guajava</i>	Leaf	90000.0	100000.0	-0.12855505340498594	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Haematoxylum campechianum</i>	Wood		100000.0	1.2399802396022128	--
<i>Thymus vulgaris</i>	Plant	80000.0	100000.0	0.23890746627510662	--
<i>Mimosa pudica</i>	Root		100000.0	0.7334775263353299	--
<i>Zizyphus jujuba</i>	Fruit		100000.0	0.05308235507533624	--
<i>Filipendula ulmaria</i>	Shoot		93100.0	-0.0926152853107834	--
<i>Teucrium scorodonia</i>	Leaf	80000.0	90000.0	-0.250634583888664	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6. Springer-Verlag, Berlin, 1969-1979.
<i>Symphytum officinale</i>	Plant	80000.0	90000.0	0.09291261850435828	--
<i>Anacardium occidentale</i>	Bark		90000.0	-0.44688118757765943	--
<i>Leonurus cardiaca</i>	Plant	21000.0	90000.0	0.09291261850435828	--
<i>Coffea arabica</i>	Seed		90000.0	0.12467231877609526	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Aegle marmelos	Fruit		90000.0	-0.04339391153252399	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Castanea sativa	Leaf		90000.0	-0.250634583888664	--
Filipendula ulmaria	Root		86200.0	0.3035168949684959	--
Juniperus virginiana	Bark	21000.0	86000.0	-0.4818720884442271	--
Lythrum salicaria	Root		85000.0	0.26612901398007555	--
Satureja hortensis	Plant	40000.0	85000.0	0.01991519461898411	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Prosopis juliflora	Bark	6000.0	84000.0	-0.49936753887751095	--
Lonicera japonica	Plant		80000.0	-0.053082229266390064	--
Salvia officinalis	Plant	20000.0	80000.0	-0.053082229266390064	--
Cnicus benedictus	Plant		80000.0	-0.053082229266390064	--
Agrimonia eupatoria	Leaf	50000.0	80000.0	-0.37271411437234203	--
Hyssopus officinalis	Plant	50000.0	80000.0	-0.053082229266390064	Lawrence Review of Natural Products, Jan-87.
Artemisia absinthium	Leaf	40000.0	77000.0	-0.40933797351744544	--
Serenoa repens	Root		75800.0	-0.020511406931147124	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Juglans regia	Bark	53000.0	75100.0	-0.577222293305624	--
Thymus serpyllum	Plant	50000.0	75000.0	-0.12607965315176423	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Mentha aquatica	Leaf		74000.0	-0.44596183266254885	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Tamarindus indica	Bark		70000.0	-0.6218356919104978	--
Datura stramonium	Plant		70000.0	-0.1990770770371384	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Robinia pseudoacacia	Bark		70000.0	-0.6218356919104978	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Punica granatum	Root		70000.0	-0.2012194983751788	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Ligustrum vulgare	Bark		70000.0	-0.6218356919104978	--
Prunus cerasus	Bark	50000.0	70000.0	-0.6218356919104978	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Arctostaphylos uva-ursi	Leaf	6960.0	70000.0	-0.49479364485602007	--
Tamarindus indica	Bl		70000.0		--
Marrubium vulgare	Plant	65000.0	70000.0	-0.1990770770371384	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Glechoma hederacea	Plant	30000.0	70000.0	-0.1990770770371384	--
Terminalia bellirica	Bark	14000.0	70000.0	-0.6218356919104978	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prunus domestica	Bark		68000.0	-0.6393311423437816	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prosopis juliflora	Root		67000.0	-0.2946892008462297	--
Acacia nilotica	Seed		66100.0	-0.17202297185321858	--
Quercus suber	Cork	20000.0	65000.0		--
Ulmus rubra	Bark	30000.0	65000.0	-0.6655743179937075	--
Calendula officinalis	Leaf		64500.0	-0.561937386622043	--
Manilkara zapota	Fruit	31600.0	64500.0	-0.2894083913825676	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Acacia nilotica	Wood		63500.0	0.39532807016866817	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Melicoccus bijugatas	Fruit	18800.0	60225.0	-0.33065199535742784	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Aleurites moluccana	Bark	40000.0	60000.0	-0.709312944076917	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Catalpa bignonioides	Bark		60000.0	-0.709312944076917	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Cuscuta europaea	Root		60000.0	-0.5127851732786817	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rumex crispus	Root	30000.0	60000.0	-0.5127851732786817	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Azadirachta indica	Stem Bark		60000.0	-0.4287334899984996	--
Dodonaea viscosa	Leaf		59800.0	-0.6193147659493717	--
Thuja occidentalis	Branches		59000.0		--
Dodonaea viscosa	Bark		58000.0	-0.7268083945102009	--
Plantago major	Plant	40000.0	57000.0	-0.3888703791391115	--
Berberis vulgaris	Fruit		55600.0	-0.37527226866356317	Jim Duke's personal files.
Serenoa repens	Stem		54800.0	-0.5063597006118161	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Agrimonia eupatoria	Bark		52800.0	-0.7722965656367389	Wealth of India.
Hippophae rhamnoides	Shoot	40000.0	50000.0	-0.7390474791398953	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Juniperus communis	Fruit		50000.0	-0.42929897796396493	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Geranium thunbergii	Plant		50000.0	-0.4910667725786353	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum basilicum	Plant		50000.0	-0.4910667725786353	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Teucrium chamaedrys	Plant		50000.0	-0.4910667725786353	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Persea americana	Leaf		47000.0	-0.7755765649684798	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Zizyphus jujuba	Leaf		46000.0	-0.7877845180168476	--
Aspalathus linearis	Shoot		44000.0	-0.8290380397657579	--
Lagochilus inebrians	Plant	20000.0	40000.0	-0.6370616203493836	--
Achillea millefolium	Plant	28000.0	40000.0	-0.6370616203493836	--
Mentha pulegium	Plant		40000.0	-0.6370616203493836	--
Turnera diffusa	Leaf	8400.0	40000.0	-0.8610322363070544	--
Chimaphila umbellata	Plant		40000.0	-0.6370616203493836	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Aspidosperma quebracho-blanco	Bark	30000.0	40000.0	-0.8842674484097555	--
Ficus carica	Leaf		36000.0	-0.9098640485005256	Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
Scutellaria galericulata	Plant	28600.0	35000.0	-0.7100590442347579	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Polygonum hydropiper	Plant		35000.0	-0.7100590442347579	--
Mercurialis annua	Root		33500.0	-1.3384342117729644	--
Artocarpus heterophyllus	Bark		33000.0	-0.945501524926249	--
Cedrus deodora	Leaf		32000.0	-0.9586958606939968	--
Solanum tuberosum	Leaf		32000.0	-0.9586958606939968	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sambucus nigra	Leaf	4400.0	30000.0	-0.9831117667907324	--
Viburnum opulus	Fruit		30000.0	-0.6222515111796854	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Menyanthes trifoliata	Plant		30000.0	-0.783056468120132	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Cornus florida	Bark		30000.0	-0.9717447005761747	--
Borago officinalis	Plant		30000.0	-0.783056468120132	--
Marrubium vulgare	Flower	26000.0	29000.0	-1.0048129490429472	--
Medicago sativa	Hay	27000.0	28000.0		--
Castanea sativa	Seed	20000.0	28000.0	-0.6449974728145933	--
Acacia nilotica	Bark		27100.0	-0.9971131037044363	--
Pachira aquatica	Bark		27000.0	-0.9979878762261004	--
Teucrium montanum	Plant		22000.0	-0.8998523463367307	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Phyllanthus emblica	Leaf	18000.0	22000.0	-1.080775391177675	--
Piper betel	Leaf	10000.0	20500.0	-1.0990873207502265	--
Althaea officinalis	Root		20000.0	-1.7590478728926933	--
Viburnum prunifolium	Root Bark		20000.0	-1.4032939781516864	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Rosa canina	Fruit	3740.0	20000.0	-0.7187277777875456	--
Sterculia urens	Gum		20000.0		--
Phoenix dactylifera	Fruit	200.0	18000.0	-0.7380230311091176	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hippophae rhamnoides	Fruit		18000.0	-0.7380230311091176	Abstract (See species file)
Gossypium sp	Stem		17700.0	-1.3573651317646305	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pogostemon cablin	Plant		17000.0	-0.9728497702221048	--
Acorus calamus	Rhizome		15000.0		--
Tsuga canadensis	Leaf		15000.0	-1.1662310625162495	--
Ceratonia siliqua	Fruit		15000.0	-0.7669659110914757	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Eucalyptus citriodora	Leaf		11600.0	-1.2077381028807002	--
Holarrhena pubescens	Bark		11400.0	-1.1344523896057144	--
Argemone mexicana	Plant		11000.0	-1.060446678884554	--
Actinidia chinensis	Fruit		9500.0	-0.8200278577257989	--
Prosopis juliflora	Wood		9000.0	-0.8658648951499126	--
Prunus persica	Fruit		8000.0	-0.8344992977169778	--
Prunus persica	Leaf		8000.0	-1.251686733854824	--
Araucaria bidwillii	Leaf		7000.0	-1.263894686903192	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Caesalpinia pulcherrima	Leaf		7000.0	-1.263894686903192	--
Rubus idaeus	Fruit		6200.0	-0.8518650257063927	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Tussilago farfara	Flower		6000.0	-1.3938819360461085	--
Ononis spinosa	Plant		5000.0	-1.148043587547003	--
Ficus carica	Stem Bark		5000.0	-0.9527410888855545	Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
Ammi majus	Seed		4500.0	-0.9367271518852576	--
Myroxylon balsamum	Plant		4000.0	-1.1626430723240777	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Araucaria bidwillii</i>	Wood		3000.0	-1.0047118271115913	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Caesalpinia pulcherrima</i>	Wood		3000.0	-1.0047118271115913	--
<i>Solanum melongena</i>	Fruit		2000.0	-0.892385057681694	--
<i>Punica granatum</i>	Fruit Juice		1700.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Solanum sessiliflorum</i>	Fruit	142.0	1420.0	-0.8979806811449499	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Mangifera indica</i>	Seed		1100.0	-0.9789348501337792	--
<i>Prunus armeniaca</i>	Fruit	600.0	1000.0	-0.9020326843424801	--
<i>Panax quinquefolius</i>	Plant				--
<i>Piscidia piscipula</i>	Plant				--
<i>Eriobotrya japonica</i>	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Chamaemelum nobile</i>	Plant				--
<i>Schisandra chinensis</i>	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Ocimum basilicum</i>	Tissue Culture				--
<i>Santalum album</i>	Wood				--
<i>Teucrium marum</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Quercus infectoria</i>	Plant				--
<i>Chamaesyce hypericifolia</i>	Plant				--
<i>Alpinia officinarum</i>	Rhizome				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Euphrasia officinalis</i>	Shoot				Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Acacia catechu	Plant				--
Hedeoma pulegioides	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Buxus sempervirens	Leaf				--
Iris x germanica	Rhizome				--
Illicium verum	Fruit				--
Euonymus atropurpureus	Root				--
Lycopus virginicus	Plant				--
Eriodictyon californicum	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Stillingia sylvatica	Plant				--
Tilia sp.	Flower				--
Yucca baccata	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Matricaria recutita	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.
Mentha x piperita	Plant				--
Acorus calamus	Plant				--
Santolina chamaecyparissus	Root				--
Genipa americana	Fruit				--
Ballota nigra	Plant				--
Cinnamomum aromaticum	Bark				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Rosmarinus officinalis	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Ephedra nevadensis	Plant				--
Juglans cinerea	Bark				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anaphalis margaritacea	Plant				--
Iris versicolor	Rhizome				--
Symplocarpus foetidus	Plant				--
Vinca minor	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Vanilla planifolia	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Gentiana lutea	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	Wood				Jim Duke's personal files.
Sarcostemma acidum	Plant				--
Artemisia cina	Flower				--
Catha edulis	Leaf				--
Plantago ovata	Plant				--
Portulaca oleracea	Plant				--
Genista tinctoria	Plant				--
Paeonia lactiflora	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
Senecio aureus	Plant				--
Origanum majorana	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Cinnamomum aromaticum	Plant				--
Annona muricata	Plant				--
Zanthoxylum americanum	Plant				--
Spigelia marilandica	Plant				--
Cichorium intybus	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mitchella repens	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Artemisia abrotanum	Plant				--
Conyza canadensis	Plant				--
Ocimum tenuiflorum	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Senna alata	Leaf				--
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.
Ginkgo biloba	Leaf				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Lantana camara	Leaf				--
Alisma plantago-aquatica	Plant				--
Morus alba	Stem				--
Centella asiatica	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.
Paeonia moutan	Root Bark				--
Capparis spinosa	Plant				--
Centaurea cyanus	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Cuminum cyminum	Fruit				--
Rosa laevigata	Fruit				--
Smilax china	Root				--
Cydonia oblonga	Seed				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lindera benzoin	Plant				--
Liquidambar orientalis	Plant				--
Saussurea lappa	Root				--
Mentha arvensis var. piperascens	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Carum carvi	Plant				--
Cytisus scoparius	Flower				--
Cinnamomum verum	Plant				--
Dipsacus fullonum	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pistacia vera	Plant				--
Plantago psyllium	Plant				--
Malva neglecta	Flower				--
Citrus aurantium	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Annona reticulata	Bark				--
Paeonia officinalis	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Lepidium meyenii	Root				--
Vitis vinifera	Seed				--
Acacia senegal	Plant				Pakistan Encyclopedia Planta Medica. 1986.
Taraxacum officinale	Root				--
Cocos nucifera	Plant				Jim Duke's personal files.
Croton eluteria	Bark				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Syzygium cumini</i>	Fruit				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
<i>Sassafras albidum</i>	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Guaiacum</i> sp.	Wood				--
<i>Adiantum capillus-veneris</i>	Plant				--
<i>Galium odoratum</i>	Plant				--
<i>Psidium guajava</i>	Root				--
<i>Guarea rusbyi</i>	Bark				--
<i>Marsdenia reichenbachii</i>	Plant				--
<i>Paeonia suffruticosa</i>	Root Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Coriandrum sativum</i>	Fruit				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Hydnocarpus kurzii</i>	Seed				--
<i>Anemone pulsatilla</i>	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Frangula purshiana</i>	Plant				--
<i>Capsella bursa-pastoris</i>	Plant				--
<i>Cimicifuga racemosa</i>	Root				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
<i>Sanguisorba minor</i>	Plant				--
<i>Schinus terebinthifolius</i>	Bark				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Dioscorea bulbifera</i>	Tuber				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Scutellaria churchilliana	Plant				--
Syzygium aromaticum	Plant				--
Warburgia ugandensis	Bark				--
Tussilago farfara	Rhizome				--
Catharanthus roseus	Leaf				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Actaea cimicifuga	Rhizome				--
Ocimum sanctum	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Acacia tortilis	Bark				--
Acacia tortilis	Leaf				--
Liquidambar styraciflua	Plant				--
Viola tricolor	Plant				--
Salvia sclarea	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Cynara cardunculus	Plant				--
Bryonia alba	Root				--
Asclepias syriaca	Sprout Seedling				--
Fragaria spp	Leaf				--
Jateorhiza palmata	Root				--
Rhododendron ferrugineum	Leaf				--
Ribes uva-crispa	Fruit				--
Rubus fruticosus	Leaf				--
Acalypha indica	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Filipendula ulmaria	Leaf				--
Eupatorium odoratum	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tamarindus indica	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Gardenia jasminoides	Fruit				Chemical Constituents of Oriental Herbs (3 diff. books)
Prunus laurocerasus	Leaf				--
Cuminum cyminum	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Populus nigra	Plant				--
Pteridium aquilinum	Plant				--
Piper angustifolium	Leaf				--
Cinchona officinalis	Bark				--
Acacia leucophloea	Plant				--
Prunus serotina	Bark				--
Senna occidentalis	Seed				--
Krameria triandra	Root				--
Peucedanum ostruthium	Root				--
Swertia chirata	Plant				--
Mahonia aquifolium	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Phytolacca americana	Root				--
Aloysia citrodora	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Collinsonia canadensis	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.
Annona squamosa	Plant				--
Acacia melanoxylon	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Scutellaria lateriflora	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Tabernanthe iboga	Root				--
Actaea racemosa	Root				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Armoracia rusticana	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Frangula alnus	Bark				--
Nepeta cataria	Leaf				--
Tridax procumbens	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Cola acuminata	Seed				--
Verbena officinalis	Plant				--
Phyllanthus emblica	Twig				--
Albizia julibrissin	Bark				--
Gaultheria procumbens	Leaf				--
Origanum creticum	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Jatropha gossypifolia	Leaf				--
Prunus spinosa	Fruit				--
Veronica officinalis	Plant				--
Nigella sativa	Seed				--
Sterculia urens	Bark				--
Artemisia dracuncululus	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Gleditsia triacanthos	Leaf				--
Aesculus hippocastanum	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Pausinystalia johimbe	Bark				--
Apocynum cannabinum	Plant				--
Berberis vulgaris	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Croton lechleri	Plant				Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Gelsemium sempervirens	Root				--
Chrysanthemum balsamita	Plant				--
Peumus boldus	Leaf				--
Sambucus canadensis	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.