

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for TANNIN

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rumex hymenosepalus	Plant	180000.0	350000.0	3.8887786605438155	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Rhizophora mangle	Bark	10000.0	520000.0	3.314640655578367	--
Ceratonia siliqua	Bark	12000.0	500000.0	3.1396861512455287	--
Arbutus unedo	Bark		450000.0	2.7022998904134328	--
Anogeissus latifolia	Leaf	322000.0	329000.0	2.6670661946712415	--
Terminalia chebula	Fruit	1090.0	355000.0	2.513227153575772	--
Acacia nilotica	Fruit		349500.0	2.460165206941449	--
Eucalyptus cornea	Plant		250000.0	2.428830182836332	--
Areca catechu	Seed	150000.0	250000.0	2.1109169422359373	--
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.
Rumex acetosella	Root	80000.0	140000.0	1.9797402259493415	--
Camellia sinensis	Leaf	33800.0	270000.0	1.946796964817541	--
Rhus glabra	Leaf		270000.0	1.946796964817541	--
Phyllanthus emblica	Fruit		280000.0	1.7896551540168204	--
Arctostaphylos uva-ursi	Plant	60000.0	200000.0	1.69885594398259	--
Agrimonia eupatoria	Shoot	30000.0	210000.0	1.6607008042164362	--
Fallopia japonica	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.
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.
Psidium guajava	Bark	110000.0	300000.0	1.3901411079171442	--
Punica granatum	Stem Bark	100000.0	250000.0	1.3814745788840543	--
Atropa bella-donna	Root		120000.0	1.3566088761423356	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sanguisorba officinalis	Plant		170000.0	1.260871400670345	--
Maclura pomifera	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.
Haematoxylum campechianum	Wood		100000.0	1.2399802396022128	--
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.
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.
Terminalia bellirica	Fruit	170000.0	214000.0	1.152911794404943	--
Simarouba amara	Bark	200000.0	270000.0	1.1277093514178864	--
Vaccinium myrtillus	Leaf	60000.0	200000.0	1.0922402514317946	--
Sclerocarya caffra	Leaf		200000.0	1.0922402514317946	--
Vaccinium vitis-idaea	Leaf	60000.0	200000.0	1.0922402514317946	--
Geranium thunbergii	Leaf		200000.0	1.0922402514317946	--
Coriaria myrtifolia	Leaf	100000.0	200000.0	1.0922402514317946	--
Mangifera indica	Flower		150000.0	1.0420282434519452	--
Melia azedarach	Bark	180000.0	260000.0	1.0402320992514673	--
Terminalia catappa	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.
Punica granatum	Pericarp	104000.0	336000.0	1.0	--
Stachys officinalis	Plant	25200.0	150000.0	0.9688817051288484	--
Ajuga reptans	Plant		150000.0	0.9688817051288484	--
Punica granatum	Root Bark	20000.0	280000.0	0.8535499454737059	--
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	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Schinus molle	Bark		230000.0	0.7778003427522096	--
Mimosa pudica	Root		100000.0	0.7334775263353299	--
Tussilago farfara	Leaf		170000.0	0.7260016599807604	--
Lythrum salicaria	Stem		105000.0	0.6451355188995392	--
Arbutus unedo	Leaf		160000.0	0.6039221294970823	--
Ilex paraguariensis	Leaf	40000.0	160000.0	0.6039221294970823	--
Tsuga canadensis	Root Bark		245000.0	0.54974403267798	--
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.
Quercus robur	Bark	80000.0	200000.0	0.5153685862529519	--
Alnus glutinosa	Bark		200000.0	0.5153685862529519	--
Quercus alba	Bark	78500.0	200000.0	0.5153685862529519	--
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.
Paullinia cupana	Seed	50000.0	120000.0	0.49709318567481553	--
Acacia nilotica	Wood		63500.0	0.39532807016866817	--
Prunella vulgaris	Plant	45000.0	105800.0	0.3235844779821407	--
Filipendula ulmaria	Root		86200.0	0.3035168949684959	--
Urtica dioica	Leaf	59700.0	133000.0	0.27430739719115166	Jim Duke's personal files.
Lythrum salicaria	Root		85000.0	0.26612901398007555	--
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	--
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pinus sylvestris	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.
Solanum nigrum	Plant	70000.0	100000.0	0.23890746627510662	--
Thymus vulgaris	Plant	80000.0	100000.0	0.23890746627510662	--
Phyllanthus emblica	Bark	80000.0	166400.0	0.22144501897378338	--
Quercus rubra	Bark		160000.0	0.1654595775872751	--
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.
Coffea arabica	Seed		90000.0	0.12467231877609526	--
Rubus idaeus	Leaf	16900.0	120000.0	0.11560400756237017	--
Lythrum salicaria	Leaf		120000.0	0.11560400756237017	--
Ailanthus altissima	Leaf		120000.0	0.11560400756237017	--
Rhododendron ponticum	Leaf	50000.0	120000.0	0.11560400756237017	--
Symphytum officinale	Plant	80000.0	90000.0	0.09291261850435828	--
Leonurus cardiaca	Plant	21000.0	90000.0	0.09291261850435828	--
Tsuga canadensis	Bark	100000.0	150500.0	0.08235618802917684	--
Anogeissus latifolia	Bark	100000.0	150000.0	0.07798232542085588	--
Hamelia patens	Bark		150000.0	0.07798232542085588	--
Quillaja saponaria	Bark		150000.0	0.07798232542085588	--
Zizyphus jujuba	Fruit		100000.0	0.05308235507533624	--
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.
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
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.
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.
Lonicera japonica	Plant		80000.0	-0.053082229266390064	--
Salvia officinalis	Plant	20000.0	80000.0	-0.053082229266390064	--
Cnicus benedictus	Plant		80000.0	-0.053082229266390064	--
Hyssopus officinalis	Plant	50000.0	80000.0	-0.053082229266390064	Lawrence Review of Natural Products, Jan-87.
Filipendula ulmaria	Shoot		93100.0	-0.0926152853107834	--
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.
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.
Thymus vulgaris	Leaf	16800.0	100000.0	-0.12855505340498594	--
Ligustrum vulgare	Leaf	60000.0	100000.0	-0.12855505340498594	--
Psidium guajava	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.
Acacia nilotica	Seed		66100.0	-0.17202297185321858	--
Salix alba	Bark	20160.0	120000.0	-0.18444943107840175	--
Castanea sativa	Bark	40000.0	120000.0	-0.18444943107840175	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Datura stramonium	Plant		70000.0	-0.1990770770371384	--
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	--
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.
Teucrium scorodonia	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.
Castanea sativa	Leaf		90000.0	-0.250634583888664	--
Albizia lebbeck	Bark	70000.0	110000.0	-0.271926683244821	Wealth of India.
Ceiba pentandra	Bark		108200.0	-0.28767258863477646	--
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.
Prosopis juliflora	Root		67000.0	-0.2946892008462297	--
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.
Pinus kesiya	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.
Sclerocarya caffra	Bark	35000.0	100000.0	-0.3594039354112402	--
Pinus insularis	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.
Agrimonia eupatoria	Leaf	50000.0	80000.0	-0.37271411437234203	--
Berberis vulgaris	Fruit		55600.0	-0.37527226866356317	Jim Duke's personal files.
Plantago major	Plant	40000.0	57000.0	-0.3888703791391115	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Artemisia absinthium</i>	Leaf	40000.0	77000.0	-0.40933797351744544	--
<i>Azadirachta indica</i>	Stem Bark		60000.0	-0.4287334899984996	--
<i>Juniperus communis</i>	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.
<i>Mentha aquatica</i>	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.
<i>Anacardium occidentale</i>	Bark		90000.0	-0.44688118757765943	--
<i>Juniperus virginiana</i>	Bark	21000.0	86000.0	-0.4818720884442271	--
<i>Geranium thunbergii</i>	Plant		50000.0	-0.4910667725786353	--
<i>Ocimum basilicum</i>	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.
<i>Teucrium chamaedrys</i>	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.
<i>Arctostaphylos uva-ursi</i>	Leaf	6960.0	70000.0	-0.49479364485602007	--
<i>Prosopis juliflora</i>	Bark	6000.0	84000.0	-0.49936753887751095	--
<i>Serenoa repens</i>	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.
<i>Cuscuta europaea</i>	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.
<i>Rumex crispus</i>	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.
<i>Calendula officinalis</i>	Leaf		64500.0	-0.561937386622043	--
<i>Juglans regia</i>	Bark	53000.0	75100.0	-0.577222293305624	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Dodonaea viscosa	Leaf		59800.0	-0.6193147659493717	--
Tamarindus indica	Bark		70000.0	-0.6218356919104978	--
Robinia pseudoacacia	Bark		70000.0	-0.6218356919104978	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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.
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.
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.
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	--
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.
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.
Castanea sativa	Seed	20000.0	28000.0	-0.6449974728145933	--
Acacia nilotica	Resin, Exudate, Sap	170000.0	200000.0	-0.6588112916807376	--
Ulmus rubra	Bark	30000.0	65000.0	-0.6655743179937075	--
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--
Rosa canina	Fruit	3740.0	20000.0	-0.7187277777875456	--
Dodonaea viscosa	Bark		58000.0	-0.7268083945102009	--
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)
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.
Jatropha curcas	Resin, Exudate, Sap	116000.0	187000.0	-0.7543266834114022	--
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.
Agrimonia eupatoria	Bark		52800.0	-0.7722965656367389	Wealth of India.
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.
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.
Borago officinalis	Plant		30000.0	-0.783056468120132	--
Zizyphus jujuba	Leaf		46000.0	-0.7877845180168476	--
Actinidia chinensis	Fruit		9500.0	-0.8200278577257989	--
Aspalathus linearis	Shoot		44000.0	-0.8290380397657579	--
Prunus persica	Fruit		8000.0	-0.8344992977169778	--
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Turnera diffusa	Leaf	8400.0	40000.0	-0.8610322363070544	--
Prosopis juliflora	Wood		9000.0	-0.8658648951499126	--
Aspidosperma quebracho-blanco	Bark	30000.0	40000.0	-0.8842674484097555	--
Solanum melongena	Fruit		2000.0	-0.892385057681694	--
Solanum sessiliflorum	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.
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.
Prunus armeniaca	Fruit	600.0	1000.0	-0.9020326843424801	--
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.
Ammi majus	Seed		4500.0	-0.9367271518852576	--
Artocarpus heterophyllus	Bark		33000.0	-0.945501524926249	--
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.
Cedrus deodora	Leaf		32000.0	-0.9586958606939968	--
Solanum tuberosum	Leaf		32000.0	-0.9586958606939968	--
Cornus florida	Bark		30000.0	-0.9717447005761747	--
Pogostemon cablin	Plant		17000.0	-0.9728497702221048	--
Mangifera indica	Seed		1100.0	-0.9789348501337792	--
Sambucus nigra	Leaf	4400.0	30000.0	-0.9831117667907324	--
Acacia nilotica	Bark		27100.0	-0.9971131037044363	--
Pachira aquatica	Bark		27000.0	-0.9979878762261004	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Juglans nigra	Pericarp	33600.0	280000.0	-1.0	--
Araucaria bidwillii	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.
Caesalpinia pulcherrima	Wood		3000.0	-1.0047118271115913	--
Marrubium vulgare	Flower	26000.0	29000.0	-1.0048129490429472	--
Argemone mexicana	Plant		11000.0	-1.060446678884554	--
Phyllanthus emblica	Leaf	18000.0	22000.0	-1.080775391177675	--
Piper betel	Leaf	10000.0	20500.0	-1.0990873207502265	--
Holarrhena pubescens	Bark		11400.0	-1.1344523896057144	--
Ononis spinosa	Plant		5000.0	-1.148043587547003	--
Myroxylon balsamum	Plant		4000.0	-1.1626430723240777	--
Tsuga canadensis	Leaf		15000.0	-1.1662310625162495	--
Eucalyptus citriodora	Leaf		11600.0	-1.2077381028807002	--
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	--
Mercurialis annua	Root		33500.0	-1.3384342117729644	--
Gossypium sp	Stem		17700.0	-1.3573651317646305	--
Tussilago farfara	Flower		6000.0	-1.3938819360461085	--
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.
Althaea officinalis	Root		20000.0	-1.7590478728926933	--
Panax quinquefolius	Plant				--
Piscidia piscipula	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<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>Acorus calamus</i>	Rhizome		15000.0		--
<i>Euphrasia officinalis</i>	Shoot				Jim Duke's personal files.
<i>Acacia catechu</i>	Plant				--
<i>Hedeoma pulegioides</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Buxus sempervirens</i>	Leaf				--
<i>Iris x germanica</i>	Rhizome				--
<i>Illicium verum</i>	Fruit				--
<i>Euonymus atropurpureus</i>	Root				--
<i>Lycopus virginicus</i>	Plant				--
<i>Eriodictyon californicum</i>	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Stillingia sylvatica</i>	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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				--
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				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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				--
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lantana camara	Leaf				--
Alisma plantago-aquatica	Plant				--
Morus alba	Stem				--
Thuja occidentalis	Branches		59000.0		--
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				--
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				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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				--
Syzygium cumini	Fruit				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Sassafras albidum	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Guaiacum sp.	Wood				--
Adiantum capillus-veneris	Plant				--
Galium odoratum	Plant				--
Psidium guajava	Root				--
Guarea rusbyi	Bark				--
Marsdenia reichenbachii	Plant				--
Paeonia suffruticosa	Root Bark				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
Coriandrum sativum	Fruit				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Hydnocarpus kurzii	Seed				--
Anemone pulsatilla	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Frangula purshiana	Plant				--
Capsella bursa-pastoris	Plant				--
Cimicifuga 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.
Sanguisorba minor	Plant				--
Schinus terebinthifolius	Bark				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Dioscorea bulbifera	Tuber				--
Scutellaria churchilliana	Plant				--
Syzygium aromaticum	Plant				--
Warburgia ugandensis	Bark				--
Medicago sativa	Hay	27000.0	28000.0		--
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				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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				--
Sanguisorba officinalis	Hs		170000.0		--
Oenothera biennis	Herb		110000.0		--
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.
Tamarindus indica	Bl		70000.0		--
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				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Pteridium aquilinum</i>	Plant				--
<i>Piper angustifolium</i>	Leaf				--
<i>Cinchona officinalis</i>	Bark				--
<i>Quercus suber</i>	Cork	20000.0	65000.0		--
<i>Acacia leucophloea</i>	Plant				--
<i>Prunus serotina</i>	Bark				--
<i>Senna occidentalis</i>	Seed				--
<i>Krameria triandra</i>	Root				--
<i>Peucedanum ostruthium</i>	Root				--
<i>Swertia chirata</i>	Plant				--
<i>Mahonia aquifolium</i>	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Phytolacca americana</i>	Root				--
<i>Aloysia citrodora</i>	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.
<i>Collinsonia canadensis</i>	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.
<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>Annona squamosa</i>	Plant				--
<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>Acacia melanoxylon</i>	Plant				--
<i>Scutellaria lateriflora</i>	Plant				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
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				--
Sterculia urens	Gum		20000.0		--
Artemisia dracunculus	Plant				--
Gleditsia triacanthos	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Aesculus hippocastanum</i>	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Pausinystalia johimbe</i>	Bark				--
<i>Apocynum cannabinum</i>	Plant				--
<i>Berberis vulgaris</i>	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.
<i>Croton lechleri</i>	Plant				Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
<i>Gelsemium sempervirens</i>	Root				--
<i>Chrysanthemum balsamita</i>	Plant				--
<i>Peumus boldus</i>	Leaf				--
<i>Sambucus canadensis</i>	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.