

List of Plants

TANNIN

Chemid

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Dosage

LD 40 mg/kg (ivn mus)	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.
LD 1,500 mg/kg (scu rat)	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.
LD 2,260 mg/kg (orl rat)	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.
LD 3,500 mg/kg (orl mus)	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.

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	*Reference
Acacia senegal	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
Acacia nilotica	Resin, Exudate, Sap	170000.0	200000.0	-0.66	*
Acacia melanoxylon	Plant	--	--		*
Acacia tortilis	Leaf	--	--		*
Acacia nilotica	Wood	--	63500.0	0.4	*
Acacia nilotica	Fruit	--	349500.0	2.46	*
Acacia leucophloea	Plant	--	--		*
Acacia tortilis	Bark	--	--		*
Acacia nilotica	Seed	--	66100.0	-0.17	*
Acacia nilotica	Bark	--	27100.0	-1.0	*
Acacia catechu	Plant	--	--		*
Acalypha indica	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Achillea millefolium	Plant	28000.0	40000.0	-0.64	*
Acorus calamus	Rhizome	--	15000.0		*
Acorus calamus	Plant	--	--		*
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.
Actaea cimicifuga	Rhizome	--	--		*
Actinidia chinensis	Fruit	--	9500.0	-0.82	*
Adiantum capillus-veneris	Plant	--	--		*
Aegle marmelos	Petiole	--	200000.0		Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.

Aegle marmelos	Fruit	--	90000.0	-0.04	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Aesculus hippocastanum	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Aesculus hippocastanum	Wood	--	--		Jim Duke's personal files.
Agrimonia eupatoria	Shoot	30000.0	210000.0	1.66	*
Agrimonia eupatoria	Leaf	50000.0	80000.0	-0.37	*
Agrimonia eupatoria	Bark	--	52800.0	-0.77	Wealth of India.
Ailanthus altissima	Leaf	--	120000.0	0.12	*
Ajuga reptans	Plant	--	150000.0	0.97	*
Albizia julibrissin	Bark	--	--		*
Albizia lebeck	Bark	70000.0	110000.0	-0.27	Wealth of India.
Aleurites moluccana	Bark	40000.0	60000.0	-0.71	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Alisma plantago-aquatica	Plant	--	--		*
Alnus glutinosa	Bark	--	200000.0	0.52	*
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.
Alpinia officinarum	Rhizome	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Althaea officinalis	Root	--	20000.0	-1.76	*
Ammi majus	Seed	--	4500.0	-0.94	*
Anacardium occidentale	Bark	--	90000.0	-0.45	*
Anaphalis margaritacea	Plant	--	--		*
Anemone pulsatilla	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Annona reticulata	Bark	--	--		*
Annona muricata	Plant	--	--		*
Annona squamosa	Plant	--	--		*
Anogeissus latifolia	Leaf	322000.0	329000.0	2.67	*
Anogeissus latifolia	Bark	100000.0	150000.0	0.08	*
Apocynum cannabinum	Plant	--	--		*
Araucaria bidwillii	Leaf	--	7000.0	-1.26	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Araucaria bidwillii	Wood	--	3000.0	-1.0	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Arbutus unedo	Leaf	--	160000.0	0.6	*
Arbutus unedo	Bark	--	450000.0	2.7	*
Arctostaphylos uva-ursi	Leaf	6960.0	70000.0	-0.49	*
Arctostaphylos uva-ursi	Plant	60000.0	200000.0	1.7	*
Areca catechu	Seed	150000.0	250000.0	2.11	*
Argemone mexicana	Plant	--	11000.0	-1.06	*

Armoracia rusticana	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Artemisia absinthium	Leaf	40000.0	77000.0	-0.41	*
Artemisia dracunculus	Plant	--	--		*
Artemisia abrotanum	Plant	--	--		*
Artemisia cina	Flower	--	--		*
Artocarpus heterophyllus	Bark	--	33000.0	-0.95	*
Asclepias syriaca	Sprout Seedling	--	--		*
Aspalathus linearis	Shoot	--	44000.0	-0.83	*
Aspidosperma quebracho-blanco	Bark	30000.0	40000.0	-0.88	*
Atropa belladonna	Root	--	120000.0	1.36	*
Azadirachta indica	Stem Bark	--	60000.0	-0.43	*
Ballota nigra	Plant	--	--		*
Berberis vulgaris	Fruit	--	55600.0	-0.38	Jim Duke's personal files.
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.
Borago officinalis	Plant	--	30000.0	-0.78	*
Bryonia alba	Root	--	--		*
Buxus sempervirens	Leaf	--	--		*
Byrsonima crassifolia	Bark	172500.0	282600.0	1.24	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Caesalpinia pulcherrima	Leaf	--	7000.0	-1.26	*
Caesalpinia pulcherrima	Wood	--	3000.0	-1.0	*
Calendula officinalis	Leaf	--	64500.0	-0.56	*
Camellia sinensis	Leaf	33800.0	270000.0	1.95	*
Capparis spinosa	Plant	--	--		*
Capsella bursa-pastoris	Plant	--	--		*
Carum carvi	Plant	--	--		*
Castanea sativa	Bark	40000.0	120000.0	-0.18	*
Castanea sativa	Seed	20000.0	28000.0	-0.64	*
Castanea sativa	Leaf	--	90000.0	-0.25	*
Catalpa bignonioides	Bark	--	60000.0	-0.71	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Catha edulis	Leaf	--	--		*
Catharanthus roseus	Leaf	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Cedrus deodora	Leaf	--	32000.0	-0.96	*
Ceiba pentandra	Bark	--	108200.0	-0.29	*
Centaurea cyanus	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
Ceratonia siliqua	Bark	12000.0	500000.0	3.14	*

<i>Ceratonia siliqua</i>	Fruit	--	15000.0	-0.77	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Chamaemelum nobile</i>	Plant	--	--		*
<i>Chamaesyce hypericifolia</i>	Plant	--	--		*
<i>Chimaphila umbellata</i>	Plant	--	40000.0	-0.64	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Chrysanthemum balsamita</i>	Plant	--	--		*
<i>Cichorium intybus</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>Cinchona officinalis</i>	Bark	--	--		*
<i>Cinnamomum verum</i>	Plant	--	--		*
<i>Cinnamomum aromaticum</i>	Plant	--	--		*
<i>Cinnamomum aromaticum</i>	Bark	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
<i>Citrus aurantium</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Cnicus benedictus</i>	Plant	--	80000.0	-0.05	*
<i>Cocos nucifera</i>	Plant	--	--		Jim Duke's personal files.
<i>Coffea arabica</i>	Seed	--	90000.0	0.12	*
<i>Cola acuminata</i>	Seed	--	--		*
<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>Conyza canadensis</i>	Plant	--	--		*
<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>Coriaria myrtifolia</i>	Leaf	100000.0	200000.0	1.09	*
<i>Cornus florida</i>	Bark	--	30000.0	-0.97	*
<i>Croton eluteria</i>	Bark	--	--		*
<i>Croton lechleri</i>	Plant	--	--		Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
<i>Cuminum cyminum</i>	Seed	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Cuminum cyminum</i>	Fruit	--	--		*
<i>Cuscuta europaea</i>	Root	--	60000.0	-0.51	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Cydonia oblonga</i>	Seed	--	--		*
<i>Cynara cardunculus</i>	Plant	--	--		*
<i>Cytisus scoparius</i>	Flower	--	--		*
<i>Datura stramonium</i>	Plant	--	70000.0	-0.2	*
<i>Dioscorea bulbifera</i>	Tuber	--	--		*
<i>Dipsacus fullonum</i>	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Dodonaea viscosa</i>	Leaf	--	59800.0	-0.62	*

<i>Dodonaea viscosa</i>	Bark	--	58000.0	-0.73	*
<i>Ephedra nevadensis</i>	Plant	--	--		*
<i>Eriobotrya japonica</i>	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<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>Eucalyptus citriodora</i>	Resin, Exudate, Sap	--	482000.0	1.41	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Eucalyptus cornea</i>	Plant	--	250000.0	2.43	*
<i>Eucalyptus citriodora</i>	Leaf	--	11600.0	-1.21	*
<i>Euonymus atropurpureus</i>	Root	--	--		*
<i>Eupatorium odoratum</i>	Leaf	--	--		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.
<i>Fallopia japonica</i>	Leaf	170000.0	240000.0	1.58	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Fallopia japonica</i>	Stem	30000.0	130000.0	1.22	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ficus carica</i>	Leaf	--	36000.0	-0.91	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.
<i>Ficus carica</i>	Stem Bark	--	5000.0	-0.95	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.
<i>Filipendula ulmaria</i>	Root	--	86200.0	0.3	*
<i>Filipendula ulmaria</i>	Shoot	--	93100.0	-0.09	*
<i>Filipendula ulmaria</i>	Leaf	--	--		*
<i>Fragaria spp</i>	Leaf	--	--		*
<i>Frangula alnus</i>	Bark	--	--		*
<i>Frangula purshiana</i>	Plant	--	--		*
<i>Galium odoratum</i>	Plant	--	--		*
<i>Gardenia jasminoides</i>	Fruit	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Gaultheria procumbens</i>	Leaf	--	--		*
<i>Gelsemium sempervirens</i>	Root	--	--		*
<i>Genipa americana</i>	Fruit	--	--		*
<i>Genista tinctoria</i>	Plant	--	--		*
<i>Gentiana lutea</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>Geranium thunbergii</i>	Plant	--	50000.0	-0.49	*
<i>Geranium thunbergii</i>	Leaf	--	200000.0	1.09	*
<i>Ginkgo biloba</i>	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.

Glechoma hederacea	Plant	30000.0	70000.0	-0.2	*
Gleditsia triacanthos	Leaf	--	--		*
Gossypium sp	Stem	--	17700.0	-1.36	*
Guaiacum sp.	Wood	--	--		*
Guarea rusbyi	Bark	--	--		*
Haematoxylum campechianum	Wood	--	100000.0	1.24	*
Hamelia patens	Bark	--	150000.0	0.08	*
Hedeoma pulegioides	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hippophae rhamnoides	Shoot	40000.0	50000.0	-0.74	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hippophae rhamnoides	Fruit	--	18000.0	-0.74	Abstract (See species file)
Holarrhena pubescens	Bark	--	11400.0	-1.13	*
Hydnocarpus kurzii	Seed	--	--		*
Hyssopus officinalis	Plant	50000.0	80000.0	-0.05	Lawrence Review of Natural Products, Jan-87.
Ilex paraguariensis	Leaf	40000.0	160000.0	0.6	*
Illicium verum	Fruit	--	--		*
Iris x germanica	Rhizome	--	--		*
Iris versicolor	Rhizome	--	--		*
Jateorhiza palmata	Root	--	--		*
Jatropha curcas	Resin, Exudate, Sap	116000.0	187000.0	-0.75	*
Jatropha gossypifolia	Leaf	--	--		*
Juglans regia	Leaf	90000.0	110000.0	-0.01	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Juglans nigra	Fruit	--	147000.0	0.51	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Juglans regia	Fruit	--	122000.0	0.27	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Juglans cinerea	Bark	--	--		*
Juglans nigra	Pericarp	33600.0	280000.0	-1.0	*
Juglans regia	Bark	53000.0	75100.0	-0.58	*
Juniperus virginiana	Bark	21000.0	86000.0	-0.48	*
Juniperus communis	Fruit	--	50000.0	-0.43	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Krameria triandra	Root	--	--		*
Lagochilus inebrians	Plant	20000.0	40000.0	-0.64	*
Lantana camara	Leaf	--	--		*
Lavandula angustifolia	Flower	50000.0	120000.0	0.53	*
Lavandula angustifolia	Plant	--	120000.0	0.53	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Leonurus cardiaca	Plant	21000.0	90000.0	0.09	*
Lepidium meyenii	Root	--	--		*
Ligustrum vulgare	Leaf	60000.0	100000.0	-0.13	*

Ligustrum vulgare	Bark	--	70000.0	-0.62	*
Lindera benzoin	Plant	--	--		*
Liquidambar styraciflua	Plant	--	--		*
Liquidambar orientalis	Plant	--	--		*
Lonicera japonica	Plant	--	80000.0	-0.05	*
Lycopus virginicus	Plant	--	--		*
Lythrum salicaria	Leaf	--	120000.0	0.12	*
Lythrum salicaria	Stem	--	105000.0	0.65	*
Lythrum salicaria	Flower	--	137000.0	0.82	*
Lythrum salicaria	Root	--	85000.0	0.27	*
Maclura pomifera	Wood	90000.0	100000.0	1.24	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Mahonia aquifolium	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Malva neglecta	Flower	--	--		*
Mangifera indica	Seed	--	1100.0	-0.98	*
Mangifera indica	Flower	--	150000.0	1.04	*
Manilkara zapota	Fruit	31600.0	64500.0	-0.29	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Marrubium vulgare	Plant	65000.0	70000.0	-0.2	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Marrubium vulgare	Flower	26000.0	29000.0	-1.0	*
Marsdenia reichenbachii	Plant	--	--		*
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.
Medicago sativa	Hay	27000.0	28000.0		*
Melia azedarach	Bark	180000.0	260000.0	1.04	*
Melicoccus bijugatas	Fruit	18800.0	60225.0	-0.33	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Mentha aquatica	Leaf	--	74000.0	-0.45	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Mentha pulegium	Plant	--	40000.0	-0.64	*
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.
Mentha x piperita	Plant	--	--		*
Menyanthes trifoliata	Plant	--	30000.0	-0.78	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Mercurialis annua	Root	--	33500.0	-1.34	*
Mimosa pudica	Root	--	100000.0	0.73	*
Mitchella repens	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Morus alba	Stem	--	--		*
Myroxylon balsamum	Plant	--	4000.0	-1.16	*
Myrtus communis	Plant	--	140000.0	0.82	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Nepeta cataria	Leaf	--	--		*
Nigella sativa	Seed	--	--		*
Ocimum basilicum	Plant	--	50000.0	-0.49	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Ocimum tenuiflorum	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ocimum basilicum	Tissue Culture	--	--		*
Ocimum sanctum	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Oenothera biennis	Herb	--	110000.0		*
Ononis spinosa	Plant	--	5000.0	-1.15	*
Origanum majorana	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Origanum creticum	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Pachira aquatica	Bark	--	27000.0	-1.0	*
Paeonia moutan	Root Bark	--	--		*
Paeonia suffruticosa	Root Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Paeonia lactiflora	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Paeonia officinalis	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Panax quinquefolius	Plant	--	--		*
Paullinia cupana	Seed	50000.0	120000.0	0.5	*
Pausinystalia johimbe	Bark	--	--		*
Persea americana	Leaf	--	47000.0	-0.78	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Peucedanum ostruthium	Root	--	--		*
Peumus boldus	Leaf	--	--		*
Phoenix dactylifera	Fruit	200.0	18000.0	-0.74	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Phyllanthus emblica	Twig	--	--		*
Phyllanthus emblica	Leaf	18000.0	22000.0	-1.08	*
Phyllanthus emblica	Fruit	--	280000.0	1.79	*
Phyllanthus emblica	Bark	80000.0	166400.0	0.22	*
Phytolacca americana	Root	--	--		*
Pinus insularis	Bark	70000.0	100000.0	-0.36	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pinus kesiya	Bark	70000.0	100000.0	-0.36	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pinus sylvestris	Bark	--	169000.0	0.24	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper angustifolium	Leaf	--	--		*
Piper betel	Leaf	10000.0	20500.0	-1.1	*
Piscidia piscipula	Plant	--	--		*
Pistacia lentiscus	Leaf	--	113000.0	0.03	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Pistacia vera	Plant	--	--		*
Plantago ovata	Plant	--	--		*
Plantago major	Plant	40000.0	57000.0	-0.39	*

Plantago psyllium	Plant	--	--		*
Pogostemon cablin	Plant	--	17000.0	-0.97	*
Polygonum hydropiper	Plant	--	35000.0	-0.71	*
Populus nigra	Plant	--	--		*
Portulaca oleracea	Plant	--	--		*
Prosopis juliflora	Root	--	67000.0	-0.29	*
Prosopis juliflora	Bark	6000.0	84000.0	-0.5	*
Prosopis juliflora	Wood	--	9000.0	-0.87	*
Prunella vulgaris	Plant	45000.0	105800.0	0.32	*
Prunus serotina	Bark	--	--		*
Prunus laurocerasus	Leaf	--	--		*
Prunus armeniaca	Fruit	600.0	1000.0	-0.9	*
Prunus persica	Leaf	--	8000.0	-1.25	*
Prunus domestica	Bark	--	68000.0	-0.64	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prunus spinosa	Fruit	--	--		*
Prunus persica	Fruit	--	8000.0	-0.83	*
Prunus cerasus	Bark	50000.0	70000.0	-0.62	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Psidium guajava	Leaf	90000.0	100000.0	-0.13	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Psidium guajava	Root	--	--		*
Psidium guajava	Bark	110000.0	300000.0	1.39	*
Pteridium aquilinum	Plant	--	--		*
Punica granatum	Stem Bark	100000.0	250000.0	1.38	*
Punica granatum	Leaf	--	110000.0	-0.01	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Punica granatum	Root Bark	20000.0	280000.0	0.85	*
Punica granatum	Fruit Juice	--	1700.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Punica granatum	Pericarp	104000.0	336000.0	1.0	*
Punica granatum	Root	--	70000.0	-0.2	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.
Quercus robur	Bark	80000.0	200000.0	0.52	*
Quercus suber	Cork	20000.0	65000.0		*
Quercus infectoria	Plant	--	--		*
Quercus rubra	Bark	--	160000.0	0.17	*
Quercus alba	Bark	78500.0	200000.0	0.52	*
Quillaja saponaria	Bark	--	150000.0	0.08	*
Rhizophora mangle	Bark	10000.0	520000.0	3.31	*
Rhododendron ferrugineum	Leaf	--	--		*
Rhododendron ponticum	Leaf	50000.0	120000.0	0.12	*
Rhus glabra	Leaf	--	270000.0	1.95	*
Rhus coriaria	Leaf	210000.0	280000.0	2.07	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.
Ribes uva-crispa	Fruit	--	--		*

<i>Robinia pseudoacacia</i>	Bark	--	70000.0	-0.62	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Rosa laevigata</i>	Fruit	--	--		*
<i>Rosa canina</i>	Fruit	3740.0	20000.0	-0.72	*
<i>Rosmarinus officinalis</i>	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Rubus idaeus</i>	Fruit	--	6200.0	-0.85	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rubus fruticosus</i>	Leaf	--	--		*
<i>Rubus idaeus</i>	Leaf	16900.0	120000.0	0.12	*
<i>Rumex crispus</i>	Root	30000.0	60000.0	-0.51	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rumex acetosella</i>	Root	80000.0	140000.0	1.98	*
<i>Rumex hymenosepalus</i>	Plant	180000.0	350000.0	3.89	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Salix alba</i>	Bark	20160.0	120000.0	-0.18	*
<i>Salvia officinalis</i>	Plant	20000.0	80000.0	-0.05	*
<i>Salvia sclarea</i>	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Sambucus nigra</i>	Leaf	4400.0	30000.0	-0.98	*
<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.
<i>Sanguisorba officinalis</i>	Hs	--	170000.0		*
<i>Sanguisorba minor</i>	Plant	--	--		*
<i>Sanguisorba officinalis</i>	Plant	--	170000.0	1.26	*
<i>Santalum album</i>	Wood	--	--		*
<i>Santolina chamaecyparissus</i>	Root	--	--		*
<i>Sarcostemma acidum</i>	Plant	--	--		*
<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>Satureja hortensis</i>	Plant	40000.0	85000.0	0.02	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Saussurea lappa</i>	Root	--	--		*
<i>Schinus molle</i>	Bark	--	230000.0	0.78	*
<i>Schinus terebinthifolius</i>	Bark	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<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>Sclerocarya caffra</i>	Leaf	--	200000.0	1.09	*
<i>Sclerocarya caffra</i>	Bark	35000.0	100000.0	-0.36	*
<i>Scutellaria galericulata</i>	Plant	28600.0	35000.0	-0.71	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Scutellaria churchilliana</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.
<i>Senecio aureus</i>	Plant	--	--		*
<i>Senna alata</i>	Leaf	--	--		*
<i>Senna occidentalis</i>	Seed	--	--		*

Serenoa repens	Stem	--	54800.0	-0.51	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	-0.02	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Simarouba amara	Bark	200000.0	270000.0	1.13	*
Smilax china	Root	--	--		*
Solanum nigrum	Plant	70000.0	100000.0	0.24	*
Solanum sessiliflorum	Fruit	142.0	1420.0	-0.9	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Solanum melongena	Fruit	--	2000.0	-0.89	*
Solanum tuberosum	Leaf	--	32000.0	-0.96	*
Spigelia marilandica	Plant	--	--		*
Stachys officinalis	Plant	25200.0	150000.0	0.97	*
Sterculia urens	Gum	--	20000.0		*
Sterculia urens	Bark	--	--		*
Stillingia sylvatica	Plant	--	--		*
Swertia chirata	Plant	--	--		*
Symphytum officinale	Plant	80000.0	90000.0	0.09	*
Symplocarpus foetidus	Plant	--	--		*
Syzygium aromaticum	Plant	--	--		*
Syzygium cumini	Fruit	--	--		Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Tabernanthe iboga	Root	--	--		*
Tamarindus indica	Bark	--	70000.0	-0.62	*
Tamarindus indica	Seed	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Tamarindus indica	Bl	--	70000.0		*
Taraxacum officinale	Root	--	--		*
Terminalia bellirica	Fruit	170000.0	214000.0	1.15	*
Terminalia arjuna	Bark	--	158000.0	0.15	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	-0.62	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Terminalia catappa	Fruit	60000.0	200000.0	1.02	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Terminalia chebula	Fruit	1090.0	355000.0	2.51	*
Terminalia arjuna	Fruit	70000.0	120000.0	0.25	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Terminalia catappa	Bark	--	130000.0	-0.1	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	-0.49	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Teucrium montanum	Plant	--	22000.0	-0.9	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

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.
Teucrium scorodonia	Leaf	80000.0	90000.0	-0.25	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Teucrium marum	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thuja occidentalis	Branches	--	59000.0		*
Thymus vulgaris	Leaf	16800.0	100000.0	-0.13	*
Thymus vulgaris	Plant	80000.0	100000.0	0.24	*
Thymus serpyllum	Plant	50000.0	75000.0	-0.13	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Tilia sp.	Flower	--	--		*
Tridax procumbens	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Tsuga canadensis	Root Bark	--	245000.0	0.55	*
Tsuga canadensis	Leaf	--	15000.0	-1.17	*
Tsuga canadensis	Bark	100000.0	150500.0	0.08	*
Turnera diffusa	Leaf	8400.0	40000.0	-0.86	*
Tussilago farfara	Rhizome	--	--		*
Tussilago farfara	Leaf	--	170000.0	0.73	*
Tussilago farfara	Flower	--	6000.0	-1.39	*
Ulmus rubra	Bark	30000.0	65000.0	-0.67	*
Urtica dioica	Leaf	59700.0	133000.0	0.27	Jim Duke's personal files.
Vaccinium myrtillus	Leaf	60000.0	200000.0	1.09	*
Vaccinium myrtillus	Fruit	50000.0	120000.0	0.25	*
Vaccinium vitis-idaea	Leaf	60000.0	200000.0	1.09	*
Vanilla planifolia	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Verbena officinalis	Plant	--	--		*
Veronica officinalis	Plant	--	--		*
Viburnum prunifolium	Root Bark	--	20000.0	-1.4	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Viburnum opulus	Fruit	--	30000.0	-0.62	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vinca minor	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Viola tricolor	Plant	--	--		*
Vitis vinifera	Seed	--	--		*
Warburgia ugandensis	Bark	--	--		*
Yucca baccata	Root	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Zanthoxylum americanum	Plant	--	--		*
Zizyphus jujuba	Leaf	--	46000.0	-0.79	*
Zizyphus jujuba	Fruit	--	100000.0	0.05	*