Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for COPPER

Plant	Part	Low PPM	High PPM	StdDev	Reference
Psophocarpus tetragonolobus	Seed	28.0	33.0	1.6495159701011972	--
Anacardium occidentale	Seed	22.0	37.0	2.0123354874376878	--
Carthamus tinctorius	Flower	20.0	26.0	1.8649677339170079	--
Artemisia vulgaris	Plant	18.0	20.0	0.6626022066114992	Chem. & Pharm. Bull. 38: 2205.
Linum usitatissimum	Seed	17.0	23.0	0.7424671767599702	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
Papaver somniferum	Seed	16.0	23.0	0.7424671767599702	--
Petasites japonicus	Plant	15.0	16.0	0.21963694313863044	Chem. & Pharm. Bull. 38: 2205.
Helianthus annuus	Seed	15.0	19.0	0.3796476594234794	USDA's Ag Handbook 8 and sequelae)
Sesamum indicum	Plant	14.0	56.0	4.649289577867317	--
Cucurbita pepo	Seed	14.0	25.0	0.9238769354282156	--
Corylus avellana	Seed	13.0	82.0	6.094055057473209	--
Scutellaria baicalensis	Root	13.0	18.0	0.6951955719896852	--
Asiasarum heterotropoides	Root	13.0	14.0	0.25236706334497194	--
Bupleurum chinense	Root	13.0	16.0	0.47378131766732856	--
Asiasarum sieboldii	Root	13.0	14.0	0.25236706334497194	--
Valerianella locusta	Plant	13.0	13.2	-0.09043874129237772	--
Glycyrrhiza uralensis	Root	13.0	14.0	0.25236706334497194	--
Pueraria pseudohirsuta	Root	12.0	13.0	0.14165993618379366	--
Valerianella radicata	Plant	11.1	11.3	-0.3008472414419902	--
Pistacia vera	Seed	11.0	33.0	1.6495159701011972	--
Alisma plantago-aquatica	Rhizome	11.0	15.0	0.9991093956968536	--
Vigna angularis	Seed	11.0	13.0	-0.1645816165812568	--
Oenothera biennis	Seed	11.0	13.0	-0.1645816165812568	--
Coptis chinensis	Rhizome	11.0	17.0	1.4469860213540642	--
Coptis japonica	Rhizome	11.0	17.0	1.4469860213540642	--
Coptis spp	Rhizome	11.0	17.0	1.4469860213540642	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coriandrum sativum	Fruit	10.0	13.0	0.014090749380317144	--
Pinus edulis	Seed	10.0	12.0	-0.2552864959153795	--
Juglans nigra	Seed	10.0	20.0	0.4703525387576021	--
Cajanus cajan	Seed	10.0	12.0	-0.2552864959153795	--
Phaseolus acutifolius	Seed	10.0	11.0	-0.34599137524950224	--
Pinus pinea	Seed	10.0	11.0	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)
Gardenia jasminoides	Fruit	10.0	13.0	0.014090749380317144	--
Lupinus albus	Seed	10.0	12.0	-0.2552864959153795	--
Myristica fragrans	Seed	10.0	21.0	0.5610574180917248	--
Vigna radiata	Seed	9.0	13.0	-0.1645816165812568	USDA's Ag Handbook 8 and sequelae)
Carum carvi	Fruit	9.0	13.8	0.07635430476669072	--
Cuminum cyminum	Fruit	9.0	16.0	0.24757908207921683	--
Senna obtusifolia	Seed	9.0	32.0	1.5588110907670745	--
Siegesbeckia orientalis	Plant	9.0	10.0	-0.4448109520706726	--
Piper nigrum	Fruit	9.0	20.0	0.5588968590110831	--
Fallopia japonica	Plant	9.0	10.0	-0.4448109520706726	Chem. & Pharm. Bull. 38: 2205.
Peucedanum decursivum	Plant	9.0	10.0	-0.4448109520706726	--
Cuminum cyminum	Seed	9.0	16.0	0.10753302142111128	--
Vigna unguiculata	Seed	9.0	10.0	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)
Lablab purpureus	Seed	9.0	16.0	0.10753302142111128	--
Carum carvi	Seed	9.0	18.0	0.2889427800893567	--
Arachis hypogaea	Seed	8.6	11.0	-0.34599137524950224	--
Lophatherum gracile	Plant	8.0	9.0	-0.5555522679388898	--
Cassia tora	Seed	8.0	10.0	-0.43669625458362493	--
Atractylodes ovata	Rhizome	8.0	18.0	1.6709243341826694	--
Rosa laevigata	Fruit	8.0	9.0	-0.2972270275515491	--
Polygala tenuifolia	Root	8.0	9.0	-0.30116857246091955	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus vulgaris	Plant	8.0	9.0	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)
Cicer arietinum	Seed	8.0	10.0	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)
Helianthus tuberosus	Plant	8.0	30.0	1.7700153652936705	Bonness, M. S., Promising new drugs from plants: poisons that heal, Herbarist, #56, 1990, 59-68
Lens culinaris	Seed	8.0	9.0	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
Foeniculum vulgare	Fruit	8.0	24.0	0.8702146359429493	--
Satureja hortensis	Leaf	8.0	9.0	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Foeniculum vulgare	Seed	8.0	24.0	0.8331720560940928	--
Satureja montana	Leaf	8.0	9.0	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Vigna mungo	Seed	7.2	8.0	-0.6181060132518703	--
Artemisia herba-alba	Plant	7.0	14.0	-0.0018456885978039082	--
Canavalia ensiformis	Seed	7.0	8.0	-0.6181060132518703	--
Trifolium pratense	Hay	7.0	18.0		--
Salvia officinalis	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
Achyranthes bidentata	Root	6.0	11.0	-0.07975431813856294	--
Panax quinquefolius	Plant	6.0	13.0	-0.11258700446602109	--
Platycodon grandiflorum	Root	6.0	10.0	-0.19046144529974124	--
Curcuma longa	Rhizome	6.0	17.0	1.4469860213540642	--
Morinda sp	Root	6.0	7.0	-0.5225828267832762	--
Rheum palmatum	Rhizome	6.0	10.0	-0.12058216844617241	--
Myristica fragrans	Aril	6.0	25.0		--
Sinapis alba	Seed	6.0	8.0	-0.6181060132518703	--
Hibiscus sabdariffa	Flower	5.6	6.2	-1.2821653170679421	--
Brassica rapa	Seed	5.0	6.0	-0.7995157719201157	--
Sophora angustifolia	Root	5.0	10.0	-0.19046144529974124	--
Vigna aconitifolia	Seed	5.0	9.0	-0.5274011339177476	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Paeonia moutan	Root Bark	5.0	6.0	-0.8436614877321073	--
Scrophularia buergeriana	Root	5.0	6.0	-0.6332899539444546	--
Anemarrhena asphodeloides	Rhizome	5.0	9.0	-0.34452048127477763	--
Rosmarinus officinalis	Plant	5.0	6.0	-0.8877762155435414	USDA's Ag Handbook 8 and sequelae)
Pimenta dioica	Bud	5.0	10.0		USDA's Ag Handbook 8 and sequelae)
Paeonia suffruticosa	Root Bark	5.0	6.0	-0.8436614877321073	--
Schisandra chinensis	Fruit	5.0	11.0	-0.14156813908561597	--
Cornus officinalis	Fruit	5.0	6.0	-0.5307153602504487	--
Albizia julibrissin	Bark	5.0	6.0	-0.534522483824849	--
Juncus effusus	Pith	5.0	8.0		--
Cinnamomum verum	Bark	4.9	9.0	1.2694908990840155	--
Glycine max	Seed	4.3	18.0	0.2889427800893567	--
Cucurbita maxima	Leaf	4.2	30.0	0.06447035095193995	--
Secale cereale	Seed	4.0	5.0	-0.8902206512542384	USDA's Ag Handbook 8 and sequelae)
Taraxacum officinale	Leaf	4.0	49.0	0.5873423835723849	--
Asparagus lucidus	Root	4.0	5.0	-0.7439970811056329	--
Castanea dentata	Seed	4.0	7.0	-0.7088108925859931	--
Castanea mollisima	Seed	4.0	6.0	-0.7995157719201157	--
Pachyrhizus erosus	Tuber	4.0	25.0	1.8594670549735095	--
Juglans cinerea	Seed	4.0	8.4	-0.5818240615182214	--
Citrus aurantium	Fruit	4.0	10.0	-0.21939758331858253	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Elettaria cardamomum	Fruit	3.8	15.4	0.20088141553943706	--
Symphoricarpos orbiculatus	Stem	3.8	132.0	0.40979815881220705	--
Lens culinaris	Sprout Seedling	3.3	12.0	-0.36791183185934606	USDA's Ag Handbook 8 and sequelae)
Cocos nucifera	Seed	3.2	33.0	1.6495159701011972	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Paeonia lactiflora	Root	3.0	6.0	-0.6332899539444546	--
Mentha x piperita	Plant	3.0	15.0	0.10889562727041327	--
Brassica oleracea var. sabellica l.	Leaf	3.0	20.0	-0.2107254556903997	--
Rumex acetosa	Leaf	3.0	30.0	0.06447035095193995	--
Ophiopogon japonicus	Tuber	3.0	4.0	-1.1062652099209485	--
Syzygium aromaticum	Flower	3.0	9.0	-0.8371161987468383	--
Taraxacum officinale	Root	3.0	28.0	1.8022668436014682	--
Phaseolus lunatus	Seed	3.0	15.0	0.01682814208698858	--
Phyllanthus emblica	Fruit	3.0	14.0	0.0919201936132837	--
Juglans regia	Seed	3.0	15.0	0.01682814208698858	--
Syzygium aromaticum	Fruit	3.0	9.0	-0.2972270275515491	--
Zingiber officinale	Rhizome	3.0	16.0	1.223047708525459	--
Zingiber officinale	Root	3.0	16.0	0.47378131766732856	--
Rosmarinus officinalis	Leaf	3.0	19.0	-0.23824503635463365	USDA's Ag Handbook 8 and sequelae)
Ginkgo biloba	Seed	3.0	6.0	-0.7995157719201157	USDA's Ag Handbook 8 and sequelae)
Brassica pekinensis	Leaf	2.85	3.15	-0.6744303898827417	--
Liquidambar styraciflua	Leaf	2.8	164.0	3.752094159959289	--
Erythroxylum novogranatense	Leaf	2.7	2.9	-0.6813102850488002	--
Ipomoea aquatica	Leaf	2.6	19.0	-0.23824503635463365	--
Erythroxylum novogranatense	Leaf	2.5	2.7	-0.6868142011816469	--
Abelmoschus manihot	Leaf	2.5	21.5	-0.1694460846940488	--
Avena sativa	Seed	2.4	25.7	0.987370350962101	Jim Duke's personal files.*
Syzygium cumini	Fruit	2.3	14.0	0.0919201936132837	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Triticum aestivum	Plant	2.2	4.0	-1.1092588472799756	--
Erythroxylum coca	Leaf	2.2	13.0	-0.40336252034003733	--
Cinnamomum aromaticum	Bark	2.0	10.0	1.8708286933869704	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Capsicum frutescens	Fruit	2.0	14.0	0.0919201936132837	--
Physalis peruviana	Fruit	2.0	11.0	-0.14156813908561597	--
Chamissoa altissima	Leaf	2.0	23.0	-0.12816671369769786	Tramil
Cynara cardunculus	Flower	2.0	24.0	1.54707550654479	USDA's Ag Handbook 8 and sequelae)
Pinellia ternata	Tuber	2.0	4.0	-1.1062652099209485	--
Macadamia spp	Seed	2.0	3.0	-1.071630409922484	USDA's Ag Handbook 8 and sequelae)
Urtica dioica	Leaf	2.0	15.0	-0.3483233590115694	--
Santalum acuminatum	Fruit	2.0	9.0	-0.2972270275515491	--
Castanea sativa	Seed	2.0	5.0	-0.8902206512542384	--
Elaeagnus umbellatus	Fruit	2.0	13.0	0.014090749380317144	--
Pisum sativum	Seed	2.0	10.0	-0.43669625458362493	--
Brassica oleracea var. viridis l.	Leaf	2.0	43.0	0.42222489958698123	--
Phaseolus vulgaris	Seed	2.0	15.0	0.01682814208698858	--
Portulaca oleracea	Herb	2.0	19.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Persea americana	Fruit	2.0	11.0	-0.14156813908561597	--
Phoenix dactylifera	Fruit	2.0	4.0	-0.6863742487163819	--
Xanthosoma sagittifolium	Root	1.9	14.0	0.25236706334497194	--
Artocarpus heterophyllus	Fruit	1.8	7.0	-0.45288591601748224	--
Amorphophallus campanulatus	Root	1.8	8.0	-0.41187569962209786	--
Rosa canina	Fruit	1.8	36.0	1.804167966738548	--
Rhus copallina	Stem	1.8	30.0	-0.4627194907601241	--
Sechium edule	Leaf	1.8	10.0	-0.4859212623327392	--
Anethum graveolens	Plant	1.7	17.0	0.33037825900684764	--
Colocasia esculenta	Root	1.6	8.0	-0.41187569962209786	--
Sassafras albidum	Leaf	1.6	102.0	2.045880158776784	--
Ipomoea batatas	Root	1.5	7.0	-0.5225828267832762	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Quercus velutina	Stem	1.5	31.0	-0.4541653961564738	--
Allium sativum var. sativum	Bulb	1.4	9.7	-1.2743861857286207	--
Vigna unguiculata	Seed	1.3	12.0	-0.2552864959153795	--
Brassica juncea	Leaf	1.3	14.0	-0.3758429396758034	--
Prunus serotina	Stem	1.3	378.0	2.514105431310182	--
Nyssa sylvatica	Leaf	1.25	182.0	4.2474466119155	--
Carya ovata	Shoot	1.25	45.0	1.002503241781006	--
Quercus rubra	Stem	1.2	13.2	-0.6064282801014491	--
Quercus stellata	Stem	1.2	42.0	-0.36007035551632044	--
Quercus alba	Stem	1.2	15.2	-0.5893200908941485	--
Triticum aestivum	Seed	1.1	16.7	0.17102643695499678	--
Trichosanthes anguina	Fruit	1.1	20.0	0.5588968590110831	--
Mangifera indica	Fruit	1.1	16.6	0.2942767486189969	--
Vigna radiata	Sprout Seedling	1.0	23.0	1.366529661191855	USDA's Ag Handbook 8 and sequelae)
Petroselinum crispum	Plant	1.0	12.0	-0.22332832033423827	--
Hordeum vulgare	Seed	1.0	20.0	0.4703525387576021	Jim Duke's personal files.*
Abelmoschus esculentus	Fruit	1.0	9.0	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)
Averrhoa carambola	Fruit	1.0	15.0	0.16974963784625027	USDA's Ag Handbook 8 and sequelae)
Physalis ixocarpa	Fruit	1.0	16.0	0.24757908207921683	--
Quercus phellos	Stem	1.0	29.0	-0.4712735853637744	--
Astragalus membranaceus	Root	1.0	9.0	-0.30116857246091955	--
Manihot esculenta	Root	1.0	3.8	-0.876845633699047	--
Psidium guajava	Fruit	1.0	9.0	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)
Prunus dulcis	Seed	1.0	11.0	-0.34599137524950224	--
Moringa oleifera	Leaf	1.0	4.0	-0.6510387463181428	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
Amaranthus sp.	Leaf	1.0	19.0	-0.23824503635463365	--
Asparagus officinalis	Shoot	1.0	24.0	-0.185788465315953	--
Allium schoenoprasum	Leaf	1.0	24.0	-0.10064713303346391	Revised USDA data received 1993.
Mentha spicata	Plant	1.0	17.0	0.33037825900684764	--
Armoracia rusticana	Root	1.0	9.0	-0.30116857246091955	--
Citrus aurantiifolia	Fruit	1.0	6.0	-0.5307153602504487	USDA's Ag Handbook 8 and sequelae)
Prunus armeniaca	Seed	1.0	16.0	0.10753302142111128	--
Brassica oleracea var. gemmifera	Leaf	1.0	5.0	-0.6235191656539089	USDA's Ag Handbook 8 and sequelae)
Ananas comosus	Fruit	1.0	8.8	-0.31279291639814205	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	1.0	16.8	-0.2987881138159482	--
Diospyros virginiana	Leaf	1.0	7.5	-0.554720213993324	--
Cyrtosperma chamissonis	Root	0.9	4.4	-0.8104213574023399	--
Carya glabra	Shoot	0.9	55.0	1.568356435636701	--
Pastinaca sativa	Root	0.8	12.0	0.030952809022615355	--
Pinus echinata	Shoot	0.8	2.1	-1.4250069598599244	--
Prunus serotina	Leaf	0.8	29.0	0.03695077028770601	--
Sorbus aucubaria	Fruit	0.8	4.0	-0.6863742487163819	--
Artocarpus altilis	Fruit	0.8	7.5	-0.41397119390099896	--
Juniperus virginiana	Shoot	0.8	17.6	-0.5479345093835976	--
Rhus copallina	Leaf	0.8	19.0	-0.23824503635463365	--
Murraya sp	Fruit	0.76	6.0	-0.5307153602504487	--
Musa x paradisiaca	Fruit	0.76	6.0	-0.5307153602504487	--
Vaccinium vitis-idaea	Fruit	0.7	5.2	-0.5929789156368218	--
Rubus chamaemorus	Fruit	0.7	5.6	-0.5618471379436353	--
Vitis vinifera	Fruit	0.7	11.6	-0.09487047254583593	--
Vaccinium myrtillus	Fruit	0.7	6.3	-0.5073665269805587	ACTA AGRIC SCAND SUPPL 22: 1980

Plant	Part	Low PPM	High PPM	StdDev	Reference
Alocasia macrorrhiza	Root	0.7	2.4	-1.0318356117246965	--
Apium graveolens	Root	0.7	11.0	-0.07975431813856294	ACTA AGRIC SCAND SUPPL 22: 1980
Rubus idaeus	Fruit	0.7	6.0	-0.5307153602504487	Revised USDA data received 1993.
Cucurbita spp	Fruit	0.7	12.0	-0.06373869485264942	--
Brassica oleracea var. botrytis l.	Leaf	0.68	52.0	0.6699011255650867	--
Brassica oleracea var. italica	Leaf	0.68	52.0	0.6699011255650867	--
Phaseolus vulgaris	Fruit	0.62	45.0	2.504632964835247	--
Phoenix dactylifera	Seed	0.6	2.0	-1.1623352892566066	Abstract (See species file)
Rhus glabra	Stem	0.6	20.0	-0.5482604367966272	--
Liquidambar styraciflua	Stem	0.6	360.0	2.3601317284444767	--
Beta vulgaris	Root	0.6	17.0	0.5844884448285068	--
Ribes nigrum	Fruit	0.6	7.0	-0.45288591601748224	--
Solanum melongena	Fruit	0.6	20.0	0.5588968590110831	--
Ficus carica	Fruit	0.6	3.6	-0.7175060264095684	USDA's Ag Handbook 8 and sequelae)
Brassica nigra	Leaf	0.58	11.2	-0.4528977655356585	USDA's Ag Handbook 8 and sequelae)
Capsicum annuum	Fruit	0.5	20.0	0.5588968590110831	--
Ribes rubrum	Fruit	0.5	7.0	-0.45288591601748224	--
Dioscorea alata	Root	0.5	10.7	-0.1129664562869169	--
Vaccinium macrocarpon	Fruit	0.5	4.7	-0.6318936377533051	USDA's Ag Handbook 8 and sequelae)
Vaccinium corymbosum	Fruit	0.5	4.0	-0.6863742487163819	--
Solanum tuberosum	Tuber	0.48	14.0	0.30598824955260295	--
Pyrus communis	Fruit	0.45	11.1	-0.1337851946623192	--
Citrus sinensis	Fruit	0.44	5.5	-0.569630082366932	--
Brassica rapa	Root	0.4	4.0	-0.8547042082668113	--
Fragaria spp	Fruit	0.4	17.0	0.32540852631218337	USDA's Ag Handbook 8 and sequelae)
Ribes uva-crispa	Fruit	0.4	6.0	-0.5307153602504487	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lycopersicon esculentum	Fruit	0.4	100.0	6.785252397648407	--
Apium graveolens	Pt	0.4	7.0	1.0000000000000007	USDA's Ag Handbook 8 and sequelae)
Cucumis melo	Fruit	0.4	7.7	-0.3984053050544054	--
Lactuca sativa	Leaf	0.36	29.0	0.03695077028770601	--
Prunus domestica	Fruit	0.33	34.0	1.6485090782726148	--
Nyssa sylvatica	Stem	0.3	31.0	-0.4541653961564738	--
Raphanus sativus	Root	0.3	8.0	-0.41187569962209786	--
Brassica oleracea var. capitata l.	Leaf	0.3	87.0	1.6330864488132748	--
Allium cepa	Bulb	0.3	11.0	0.10619884881071792	--
Brassica oleracea var. botrytis l.	Flower	0.3	8.0	-0.9960623124329469	--
Cucumis sativus	Fruit	0.3	42.0	2.2711446321363473	--
Daucus carota	Root	0.3	18.0	0.6951955719896852	--
Prunus persica	Fruit	0.3	30.0	1.3371913013407486	--
Malus domestica	Fruit	0.24	4.0	-0.6863742487163819	--
Rheum rhabarbarum	Pt	0.2	5.2	-0.9999999999999998	--
Sassafras albidum	Stem	0.2	56.0	-0.24031303106521615	--
Brassica napus var. napobrassica	Root	0.2	4.0	-0.8547042082668113	ACTA AGRIC SCAND SUPPL 22: 1980
Diospyros virginiana	Stem	0.2	108.0	0.20449988832459973	--
Spinacia oleracea	Plant	0.1	24.0	1.1055674700843674	--
Syzygium jambos	Fruit	0.1	0.6	-0.9509943591084681	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Carica papaya	Fruit	0.1	5.0	-0.6085448044834153	--
Citrus paradisi	Fruit	0.0	7.7	-0.3984053050544054	--
Citrus reticulata	Fruit	0.0	4.8	-0.6241106933300086	--
Zea mays	Fruit	0.0	20.0	0.5588968590110831	--
Glehnia littoralis	Root		15.0	0.36307419050615025	--
Lonicera japonica	Flower		13.0	-0.20133174400240403	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lycium chinense	Fruit		15.0	0.16974963784625027	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Lycium chinense	Root Bark		17.0	1.6873229754642154	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Amphicarpaea bracteata	Shoot		20.0	-0.4121297428582309	--
Areca catechu	Seed		15.0	0.01682814208698858	--
Origanum majorana	Plant		11.0	-0.33406963620245544	USDA's Ag Handbook 8 and sequelae)
Genipa americana	Fruit		1.0	-0.9198625814152814	--
Hyoscyamus niger	Seed		26.0	1.0145818147623382	--
Genipa americana	Seed				--
Hordeum vulgare	Sprout Seedling		8.0	-0.99861782933251	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Eriocaulon sp	Leaf		9.0	-0.5134408429969731	--
Tephrosia candida	Plant		11.2	-0.31192137302881207	--
Annona muricata	Fruit		1.6	-0.8731649148755015	--
Magnolia denudata	Flower		16.0	0.2755065970559217	--
Camellia sinensis	Leaf		20.0	-0.2107254556903997	--
Celosia cristata	Flower		9.0	-0.8371161987468383	--
Bertholletia excelsa	Seed		18.0	0.2889427800893567	USDA's Ag Handbook 8 and sequelae)
Crocus sativus	Silk Stigma Style		3.0		USDA's Ag Handbook 8 and sequelae)
Jussiaea repens	Plant		15.0	0.10889562727041327	--
Phaseolus coccineus	Seed		0.7	-1.2802516323909663	--
Anthriscus cerefolium	Leaf		4.4	-0.6400309140524493	--
Forsythia suspensa	Fruit		19.0	0.4810674147781165	--
Panax japonicus	Rhizome		6.0	-1.0163354197605934	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Momordica charantia	Fruit		30.0	1.3371913013407486	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Spondias tuberosa	Fruit		0.63	-0.948659475781479	--
Citrus medica	Fruit		9.0	-0.2972270275515491	--
Angelica dahurica	Root		10.0	-0.19046144529974124	--
Cinnamomum verum	Leaf		10.9	-0.4611536397349287	--
Ligustrum japonicum	Fruit		12.0	-0.06373869485264942	--
Raphanus sativus	Seed		6.0	-0.7995157719201157	--
Citrullus lanatus	Fruit		4.0	-0.6863742487163819	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Mentha arvensis var. piperascens	Plant		20.0	0.6626022066114992	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Blechnum orientale	Rhizome		8.0	-0.5684587941033828	--
Coriandrum sativum	Leaf		18.0	-0.2657646170188676	USDA's Ag Handbook 8 and sequelae)
Pimpinella anisum	Seed		9.0	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
Lepidium meyenii	Root		60.0	5.344894912759173	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Trachyspermum ammi	Fruit		9.1	-0.2894440831282523	--
Rehmannia glutinosa	Root		4.0	-0.8547042082668113	--
Sinomenium acutum	Rhizome		16.0	1.223047708525459	--
Atractylodes lancea	Rhizome		12.0	0.327294457211038	--
Bletilla striata	Tuber		12.0	0.02353755765789269	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cichorium intybus	Root				--
Isatis tinctoria	Root		10.0	-0.19046144529974124	--
Angelica laxiflora	Root		9.0	-0.30116857246091955	--
Nasturtium officinale	Plant				--
Chenopodium album	Seed		5.0	-0.8902206512542384	--
Cinnamomum burmannii	Bark		5.0	-1.1358602781278038	--
Colocasia esculenta	Leaf		1.5	-0.7198376979787277	--
Lygodium japonicum	Pollen Or Spore		13.0		--
Quercus rubra	Seed		7.0	-0.7088108925859931	--
Cynanchum atratum	Root		12.0	0.030952809022615355	--
Amomum xanthioides	Seed		8.0	-0.6181060132518703	--
Arctium lappa	Root		29.0	1.9129739707626465	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Firmiana simplex	Seed		15.0	0.01682814208698858	--
Pulsatilla chinensis	Root		9.0	-0.30116857246091955	--
Cimicifuga dahurica	Rhizome		8.0	-0.5684587941033828	--
Angelica sinensis	Root		5.0	-0.7439970811056329	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Ephedra spp	Plant		2.0	-1.33074147901641	--
Tamarindus indica	Leaf		21.0	-0.18320587502616575	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Tragopogon porrifolius	Root		1.0	-1.1868255897503461	--
Rubia cordifolia	Root		15.0	0.36307419050615025	--
Trigonella foenum-graecum	Leaf		3.0	-0.6785583269823768	--
Arisaema consanguineum	Rhizome		7.0	-0.7923971069319881	--
Trigonella foenum-graecum	Seed		11.0	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Magnolia fargesii	Flower		16.0	0.2755065970559217	--
Cnidium officinale	Rhizome		9.0	-0.34452048127477763	--
Polystichum polyblepharum	Plant		10.0	-0.4448109520706726	--
Tussilago farfara	Flower		20.0	0.911291051800356	--
Rhizophora mangle	Leaf		35.0	0.20206825427310968	--
Prunella vulgaris	Flower		8.0	-0.9960623124329469	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Allium cepa	Seed		18.2	0.3070837559561808	--
Broussonetia papyrifera	Fruit		12.0	-0.06373869485264942	--
Ligustrum lucidum	Fruit		12.0	-0.06373869485264942	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Chaenomeles lagenaria	Fruit		24.0	0.8702146359429493	--
Dioscorea bulbifera	Rhizome		8.0	-0.5684587941033828	--
Artemisia dracunculus	Plant		7.0	-0.7770348996753241	USDA's Ag Handbook 8 and sequelae)
Opuntia ficus-indica	Seed		3.4	-1.0353484581888348	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Punica granatum	Fruit		2.0	-0.8420331371823149	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Aristolochia debilis	Fruit		14.0	0.0919201936132837	--
Gentiana scabra	Root		18.0	0.6951955719896852	--
Aconitum carmichaelii	Tuber		12.0	0.02353755765789269	--
Theobroma cacao	Seed		24.0	0.8331720560940928	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Magnolia kobus	Flower		16.0	0.2755065970559217	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Salvia miltiorrhiza	Root		8.0	-0.41187569962209786	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Actaea dahurica	Rhizome		8.0	-0.5684587941033828	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Boehmeria nivea	Plant		13.0	-0.11258700446602109	--
Cistanche salsa	Plant		8.0	-0.666293583807107	--
Nelumbo nucifera	Seed		17.0	0.19823790075523398	--
Rubus chingii	Fruit		12.0	-0.06373869485264942	--
Ocimum basilicum	Leaf		14.0	-0.3758429396758034	USDA's Ag Handbook 8 and sequelae)
Panax ginseng	Leaf				--
Lycopodium clavatum	Plant		8.0	-0.666293583807107	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Glechoma hederacea	Plant		11.0	-0.33406963620245544	Chem. & Pharm. Bull. 38: 2205.
Panax ginseng	Stem				--
Crataegus cuneata	Fruit		8.0	-0.3750564717845157	--
Geranium thunbergii	Plant		23.0	0.9948261542161503	--
Crataegus laevigata	Flower				--
Belamcanda chinensis	Rhizome		6.0	-1.0163354197605934	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Crataegus laevigata	Fruit				--
Drynaria fortunei	Rhizome		10.0	-0.12058216844617241	--
Sophora subprostrata	Root		5.0	-0.7439970811056329	--
Senna occidentalis	Seed		15.0	0.01682814208698858	--
Eupatorium odoratum	Leaf		35.0	0.20206825427310968	Tramil
Carya illinoensis	Seed		15.0	0.01682814208698858	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Magnolia officinalis	Bark		8.0	0.6681531047810607	--
Coix lacryma-jobi	Seed		5.0	-0.8902206512542384	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Panax ginseng	Root		17.0	0.5844884448285068	--
Phellodendron amurense	Bark		6.0	-0.534522483824849	--
Houttuynia cordata	Plant		26.0	1.3270501018208019	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Plantago asiatica	Plant		14.0	-0.0018456885978039082	--
Perilla frutescens	Plant		17.0	0.33037825900684764	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Eleutherococcus senticosus	Leaf				--
Eleutherococcus senticosus	Flower				--
Origanum vulgare	Plant		9.0	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)
Eleutherococcus senticosus	Stem				--
Zizyphus jujuba	Fruit		7.0	-0.45288591601748224	--
Acanthopanax gracilistylis	Root Bark		14.0	0.997054485501582	--
Akebia quinata	Stem		7.0	-0.659463666644081	--
Cyperus rotundus	Rhizome		10.0	-0.12058216844617241	--
Vicia faba	Fruit		1.7	-0.8653819704522049	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Equisetum hyemale	Plant		4.0	-1.1092588472799756	--
Eleutherococcus senticosus	Root				--
Apium graveolens	Seed		14.0	-0.07387673724713412	USDA's Ag Handbook 8 and sequelae)
Gastrodia elata	Rhizome		4.0	-1.4642120454178038	--
Spondias dulcis	Fruit		0.9	-0.9276455258385781	--
Avena sativa	Plant		4.0	-1.1092588472799756	Jim Duke's personal files.*

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tetrapanax papyrifera	Pith		8.0		--
Anethum graveolens	Fruit		8.0	-0.3750564717845157	--
Morus alba	Root Bark		6.0	-0.8436614877321073	--
Commiphora wightii	Inflorescence				Jim Duke's personal files.
Simmondsia chinensis	Seed		10.0	-0.43669625458362493	--
Eucommia ulmoides	Bark		5.0	-1.1358602781278038	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Eriobotrya japonica	Leaf		7.0	-0.568480004325441	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Laurus nobilis	Leaf		4.0	-0.6510387463181428	USDA's Ag Handbook 8 and sequelae)
Fraxinus rhynchophylla	Bark		6.0	-0.534522483824849	--
Cinnamomum sieboldii	Bark		7.0	0.06681531047810586	--
Cinnamomum sieboldii	Root Bark		9.0	-0.15339299776947393	--
Dendrobium nobile	Stem		9.0	-0.6423554774367803	--
Schizonepeta tenuifolia	Plant		23.0	0.9948261542161503	--
Acorus calamus	Rhizome		4.0	-1.4642120454178038	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Prunus persica	Seed		10.0	-0.43669625458362493	--
Quisqualis indica	Fruit		13.0	0.014090749380317144	--
Carya ovata	Seed		7.8	-0.6362469891186951	--
Euodia rutaecarpa	Fruit		16.0	0.24757908207921683	--
Fritillaria thunbergii	Bulb		12.0	1.168187336917901	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Notopterygium incisum	Rhizome		7.0	-0.7923971069319881	--
Panax ginseng	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Panax ginseng	Inflorescence				--
Peganum harmala	Plant		9.0	-0.5555522679388898	--
Artemisia capillaris	Plant		8.0	-0.666293583807107	--
Panax ginseng	Flower				--
Inula helenium	Plant				--
Anethum graveolens	Seed		8.0	-0.6181060132518703	USDA's Ag Handbook 8 and sequelae)
Nardostachys chinensis	Rhizome		10.0	-0.12058216844617241	--
Polygonum multiflorum	Rhizome		5.0	-1.2402737325891986	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
Taraxacum mongolicum	Plant		19.0	0.5518608907432819	--