Dr. Duke's Phytochemical and Ethnobotanical Database

List of Plants for COPPER

Plant	Part	Low PPM	High PPM	StdDev	Reference
Abelmoschus esculentus	Fruit	1	9	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)
Abelmoschus manihot	Leaf	2.5	21.5	-0.1694460846940488	--
Acanthopanax gracilistylis	Root Bark	14	14	0.997054485501582	--
Achyranthes bidentata	Root	6	11	-0.07975431813856294	--
Aconitum carmichaelii	Tuber	12	12	0.02353755765789269	--
Acorus calamus	Rhizome	4	4	-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.
Actaea dahurica	Rhizome	--	8	-0.5684587941033828	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Akebia quinata	Stem	7	7	-0.659463666644081	--
Albizia julibrissin	Bark	5	6	-0.534522483824849	--
Alisma plantago-aquatica	Rhizome	11	15	0.9991093956968536	--
Allium cepa	Bulb	0.3	11	0.10619884881071792	--
Allium cepa	Seed	18.2	18.2	0.3070837559561808	--
Allium sativum var. sativum	Bulb	1.4	9.7	-1.2743861857286207	--
Allium schoenoprasum	Leaf	1	24	-0.10064713303346391	Revised USDA data received 1993.
Alocasia macrorrhiza	Root	0.7	2.4	-1.0318356117246965	--
Amaranthus sp.	Leaf	1	19	-0.23824503635463365	--
Amomum xanthioides	Seed	8	8	-0.6181060132518703	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Amorphophallus campanulatus	Root	1.8	8	-0.41187569962209786	--
Amphicarpaea bracteata	Shoot	20	20	-0.4121297428582309	--
Anacardium occidentale	Seed	22	37	2.0123354874376878	--
Ananas comosus	Fruit	1	8.8	-0.31279291639814205	USDA's Ag Handbook 8 and sequelae)
Anemarrhena asphodeloides	Rhizome	5	9	-0.34452048127477763	--
Anethum graveolens	Fruit	--	8	-0.3750564717845157	--
Anethum graveolens	Plant	1.7	17	0.33037825900684764	--
Anethum graveolens	Seed	8	8	-0.6181060132518703	USDA's Ag Handbook 8 and sequelae)
Angelica dahurica	Root	10	10	-0.19046144529974124	--
Angelica laxiflora	Root	9	9	-0.30116857246091955	--
Angelica sinensis	Root	5	5	-0.7439970811056329	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Annona muricata	Fruit	1.6	1.6	-0.8731649148755015	--
Anthriscus cerefolium	Leaf	4.4	4.4	-0.6400309140524493	--
Apium graveolens	Pt	0.4	7	1.0000000000000007	USDA's Ag Handbook 8 and sequelae)
Apium graveolens	Root	0.7	11	-0.07975431813856294	ACTA AGRIC SCAND SUPPL 22: 1980
Apium graveolens	Seed	14	14	-0.07387673724713412	USDA's Ag Handbook 8 and sequelae)
Arachis hypogaea	Seed	8.6	11	-0.34599137524950224	--
Arctium lappa	Root	29	29	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Areca catechu	Seed	15	15	0.01682814208698858	--
Arisaema consanguineum	Rhizome	7	7	-0.7923971069319881	--
Aristolochia debilis	Fruit	14	14	0.0919201936132837	--
Armoracia rusticana	Root	1	9	-0.30116857246091955	--
Artemisia capillaris	Plant	8	8	-0.666293583807107	--
Artemisia dracunculus	Plant	7	7	-0.7770348996753241	USDA's Ag Handbook 8 and sequelae)
Artemisia herba-alba	Plant	7	14	-0.0018456885978039082	--
Artemisia vulgaris	Plant	18	20	0.6626022066114992	Chem. & Pharm. Bull. 38: 2205.
Artocarpus altilis	Fruit	0.8	7.5	-0.41397119390099896	--
Artocarpus heterophyllus	Fruit	1.8	7	-0.45288591601748224	--
Asiasarum heterotropoides	Root	13	14	0.25236706334497194	--
Asiasarum sieboldii	Root	13	14	0.25236706334497194	--
Asparagus lucidus	Root	4	5	-0.7439970811056329	--
Asparagus officinalis	Shoot	1	24	-0.185788465315953	--
Astragalus membranaceus	Root	1	9	-0.30116857246091955	--
Atractylodes lancea	Rhizome	12	12	0.327294457211038	--
Atractylodes ovata	Rhizome	8	18	1.6709243341826694	--
Avena sativa	Plant	4	4	-1.1092588472799756	Jim Duke's personal files.*
Avena sativa	Seed	2.4	25.7	0.987370350962101	Jim Duke's personal files.*

Plant	Part	Low PPM	High PPM	StdDev	Reference
Averrhoa carambola	Fruit	1	15	0.16974963784625027	USDA's Ag Handbook 8 and sequelae)
Belamcanda chinensis	Rhizome	6	6	-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.
Bertholletia excelsa	Seed	18	18	0.2889427800893567	USDA's Ag Handbook 8 and sequelae)
Beta vulgaris	Root	0.6	17	0.5844884448285068	--
Blechnum orientale	Rhizome	8	8	-0.5684587941033828	--
Bletilla striata	Tuber	12	12	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.
Boehmeria nivea	Plant	13	13	-0.11258700446602109	--
Brassica juncea	Leaf	1.3	14	-0.3758429396758034	--
Brassica napus var. napobrassica	Root	0.2	4	-0.8547042082668113	ACTA AGRIC SCAND SUPPL 22: 1980
Brassica nigra	Leaf	0.58	11.2	-0.4528977655356585	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. botrytis l.	Leaf	0.68	52	0.6699011255650867	--
Brassica oleracea var. botrytis l.	Flower	0.3	8	-0.9960623124329469	--
Brassica oleracea var. capitata l.	Leaf	0.3	87	1.6330864488132748	--
Brassica oleracea var. gemmifera	Leaf	1	5	-0.6235191656539089	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. italica	Leaf	0.68	52	0.6699011255650867	--
Brassica oleracea var. sabellica l.	Leaf	3	20	-0.2107254556903997	--
Brassica oleracea var. viridis l.	Leaf	2	43	0.42222489958698123	--
Brassica pekinensis	Leaf	2.85	3.15	-0.6744303898827417	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica rapa	Seed	5	6	-0.7995157719201157	--
Brassica rapa	Root	0.4	4	-0.8547042082668113	--
Broussonetia papyrifera	Fruit	12	12	-0.06373869485264942	--
Bupleurum chinense	Root	13	16	0.47378131766732856	--
Cajanus cajan	Seed	10	12	-0.2552864959153795	--
Camellia sinensis	Leaf	20	20	-0.2107254556903997	--
Canavalia ensiformis	Seed	7	8	-0.6181060132518703	--
Capsicum annuum	Fruit	0.5	20	0.5588968590110831	--
Capsicum frutescens	Fruit	2	14	0.0919201936132837	--
Carica papaya	Fruit	0.1	5	-0.6085448044834153	--
Carthamus tinctorius	Flower	20	26	1.8649677339170079	--
Carum carvi	Fruit	9	13.8	0.07635430476669072	--
Carum carvi	Seed	9	13.8	0.2889427800893567	--
Carya glabra	Shoot	0.9	55	1.568356435636701	--
Carya illinoensis	Seed	15	15	0.01682814208698858	--
Carya ovata	Seed	7.8	7.8	-0.6362469891186951	--
Carya ovata	Shoot	1.25	45	1.002503241781006	--
Cassia tora	Seed	8	10	-0.43669625458362493	--
Castanea dentata	Seed	4	7	-0.7088108925859931	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Castanea mollisima	Seed	4	6	-0.7995157719201157	--
Castanea sativa	Seed	2	5	-0.8902206512542384	--
Celosia cristata	Flower	9	9	-0.8371161987468383	--
Chaenomeles lagenaria	Fruit	24	24	0.8702146359429493	--
Chamissoa altissima	Leaf	2	23	-0.12816671369769786	Tramil
Chenopodium album	Seed	5	5	-0.8902206512542384	--
Cicer arietinum	Seed	8	10	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)
Cichorium endivia	Leaf	1	16.8	-0.2987881138159482	--
Cichorium intybus	Root	--	--		--
Cimicifuga dahurica	Rhizome	--	8	-0.5684587941033828	--
Cinnamomum aromaticum	Bark	2	10	1.8708286933869704	--
Cinnamomum burmannii	Bark	5	5	-1.1358602781278038	--
Cinnamomum sieboldii	Bark	7	7	0.06681531047810586	--
Cinnamomum sieboldii	Root Bark	9	9	-0.15339299776947393	--
Cinnamomum verum	Bark	4.9	9	1.2694908990840155	--
Cinnamomum verum	Leaf	10.9	10.9	-0.4611536397349287	--
Cistanche salsa	Plant	8	8	-0.666293583807107	--
Citrullus lanatus	Fruit	4	4	-0.6863742487163819	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Citrus aurantiifolia	Fruit	1	6	-0.5307153602504487	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus aurantium	Fruit	4	10	-0.21939758331858253	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Citrus medica	Fruit	9	9	-0.2972270275515491	--
Citrus paradisi	Fruit	0	7.7	-0.3984053050544054	--
Citrus reticulata	Fruit	0	4.8	-0.6241106933300086	--
Citrus sinensis	Fruit	0.44	5.5	-0.569630082366932	--
Cnidium officinale	Rhizome	9	9	-0.34452048127477763	--
Cocos nucifera	Seed	3.2	33	1.6495159701011972	--
Coix lacryma-jobi	Seed	--	5	-0.8902206512542384	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Colocasia esculenta	Leaf	1.5	1.5	-0.7198376979787277	--
Colocasia esculenta	Root	1.6	8	-0.41187569962209786	--
Commiphora wightii	Inflorescence	--	--		Jim Duke's personal files.
Coptis chinensis	Rhizome	11	17	1.4469860213540642	--
Coptis japonica	Rhizome	11	17	1.4469860213540642	--
Coptis spp	Rhizome	11	17	1.4469860213540642	--
Coriandrum sativum	Fruit	10	13	0.014090749380317144	--
Coriandrum sativum	Leaf	18	18	-0.2657646170188676	USDA's Ag Handbook 8 and sequelae)
Cornus officinalis	Fruit	5	6	-0.5307153602504487	--
Corylus avellana	Seed	13	82	6.094055057473209	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Crataegus cuneata	Fruit	8	8	-0.3750564717845157	--
Crataegus laevigata	Flower	--	--		--
Crataegus laevigata	Fruit	--	--		--
Crocus sativus	Silk Stigma Style	3	3		USDA's Ag Handbook 8 and sequelae)
Cucumis melo	Fruit	0.4	7.7	-0.3984053050544054	--
Cucumis sativus	Fruit	0.3	42	2.2711446321363473	--
Cucurbita maxima	Leaf	4.2	30	0.06447035095193995	--
Cucurbita pepo	Seed	14	15	0.9238769354282156	--
Cucurbita spp	Fruit	0.7	12	-0.06373869485264942	--
Cuminum cyminum	Fruit	9	16	0.24757908207921683	--
Cuminum cyminum	Seed	9	16	0.10753302142111128	--
Curcuma longa	Rhizome	6	17	1.4469860213540642	--
Cynanchum atratum	Root	12	12	0.030952809022615355	--
Cynara cardunculus	Flower	2	24	1.54707550654479	USDA's Ag Handbook 8 and sequelae)
Cyperus rotundus	Rhizome	10	10	-0.12058216844617241	--
Cyrtosperma chamissonis	Root	0.9	4.4	-0.8104213574023399	--
Daucus carota	Root	0.3	18	0.6951955719896852	--
Dendrobium nobile	Stem	9	9	-0.6423554774367803	--
Dioscorea alata	Root	0.5	10.7	-0.1129664562869169	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Dioscorea bulbifera	Rhizome	8	8	-0.5684587941033828	--
Diospyros virginiana	Leaf	1	7.5	-0.554720213993324	--
Diospyros virginiana	Stem	0.2	108	0.20449988832459973	--
Drynaria fortunei	Rhizome	10	10	-0.12058216844617241	--
Elaeagnus umbellatus	Fruit	2	13	0.014090749380317144	--
Elettaria cardamomum	Fruit	3.8	15.4	0.20088141553943706	--
Eleutherococcus senticosus	Root	--	--		--
Eleutherococcus senticosus	Leaf	--	--		--
Eleutherococcus senticosus	Flower	--	--		--
Eleutherococcus senticosus	Stem	--	--		--
Ephedra spp	Plant	2	2	-1.33074147901641	--
Equisetum hyemale	Plant	4	4	-1.1092588472799756	--
Eriobotrya japonica	Leaf	7	7	-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.
Eriocaulon sp	Leaf	9	9	-0.5134408429969731	--
Erythroxylum coca	Leaf	2.2	13	-0.40336252034003733	--
Erythroxylum novogranatense	Leaf	2.5	2.7	-0.6868142011816469	--
Erythroxylum novogranatense	Leaf	2.7	2.9	-0.6813102850488002	--
Eucommia ulmoides	Bark	5	5	-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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Euodia rutaecarpa	Fruit	16	16	0.24757908207921683	--
Eupatorium odoratum	Leaf	35	35	0.20206825427310968	Tramil
Fallopia japonica	Plant	9	10	-0.4448109520706726	Chem. & Pharm. Bull. 38: 2205.
Ficus carica	Fruit	0.6	3.6	-0.7175060264095684	USDA's Ag Handbook 8 and sequelae)
Firmiana simplex	Seed	15	15	0.01682814208698858	--
Foeniculum vulgare	Fruit	8	24	0.8702146359429493	--
Foeniculum vulgare	Seed	8	24	0.8331720560940928	--
Forsythia suspensa	Fruit	19	19	0.4810674147781165	--
Fragaria spp	Fruit	0.4	17	0.32540852631218337	USDA's Ag Handbook 8 and sequelae)
Fraxinus rhynchophylla	Bark	6	6	-0.534522483824849	--
Fritillaria thunbergii	Bulb	12	12	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.
Gardenia jasminoides	Fruit	10	13	0.014090749380317144	--
Gastrodia elata	Rhizome	4	4	-1.4642120454178038	--
Genipa americana	Fruit	1	1	-0.9198625814152814	--
Genipa americana	Seed	--	--		--
Gentiana scabra	Root	18	18	0.6951955719896852	--
Geranium thunbergii	Plant	23	23	0.9948261542161503	--
Ginkgo biloba	Seed	3	6	-0.7995157719201157	USDA's Ag Handbook 8 and sequelae)
Glechoma hederacea	Plant	11	11	-0.33406963620245544	Chem. & Pharm. Bull. 38: 2205.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Glehnia littoralis	Root	15	15	0.36307419050615025	--
Glycine max	Seed	4.3	18	0.2889427800893567	--
Glycyrrhiza uralensis	Root	13	14	0.25236706334497194	--
Helianthus annuus	Seed	15	19	0.3796476594234794	USDA's Ag Handbook 8 and sequelae)
Helianthus tuberosus	Plant	8	30	1.7700153652936705	Bonness, M. S., Promising new drugs from plants: poisons that heal, Herbarist, #56, 1990, 59-68
Hibiscus sabdariffa	Flower	5.6	6.2	-1.2821653170679421	--
Hordeum vulgare	Seed	1	20	0.4703525387576021	Jim Duke's personal files.*
Hordeum vulgare	Sprout Seedling	8	8	-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.
Houttuynia cordata	Plant	26	26	1.3270501018208019	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Hyoscyamus niger	Seed	26	26	1.0145818147623382	--
Inula helenium	Plant	--	--		--
Ipomoea aquatica	Leaf	2.6	19	-0.23824503635463365	--
Ipomoea batatas	Root	1.5	7	-0.5225828267832762	--
Isatis tinctoria	Root	10	10	-0.19046144529974124	--
Juglans cinerea	Seed	4	8.4	-0.5818240615182214	--
Juglans nigra	Seed	10	20	0.4703525387576021	--
Juglans regia	Seed	3	15	0.01682814208698858	--
Juncus effusus	Pith	5	8		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Juniperus virginiana	Shoot	0.8	17.6	-0.5479345093835976	--
Jussiaea repens	Plant	15	15	0.10889562727041327	--
Lablab purpureus	Seed	9	16	0.10753302142111128	--
Lactuca sativa	Leaf	0.36	29	0.03695077028770601	--
Laurus nobilis	Leaf	4	4	-0.6510387463181428	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Seed	8	9	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Sprout Seedling	3.3	12	-0.36791183185934606	USDA's Ag Handbook 8 and sequelae)
Lepidium meyenii	Root	--	60	5.344894912759173	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Ligustrum japonicum	Fruit	12	12	-0.06373869485264942	--
Ligustrum lucidum	Fruit	12	12	-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.
Linum usitatissimum	Seed	17	23	0.7424671767599702	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
Liquidambar styraciflua	Leaf	2.8	164	3.752094159959289	--
Liquidambar styraciflua	Stem	0.6	360	2.3601317284444767	--
Lonicera japonica	Flower	13	13	-0.20133174400240403	--
Lophatherum gracile	Plant	8	9	-0.5555522679388898	--
Lupinus albus	Seed	10	12	-0.2552864959153795	--
Lycium chinense	Fruit	15	15	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lycium chinense	Root Bark	17	17	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.
Lycopersicon esculentum	Fruit	0.4	100	6.785252397648407	--
Lycopodium clavatum	Plant	8	8	-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.
Lygodium japonicum	Pollen Or Spore	13	13		--
Macadamia spp	Seed	2	3	-1.071630409922484	USDA's Ag Handbook 8 and sequelae)
Magnolia denudata	Flower	16	16	0.2755065970559217	--
Magnolia fargesii	Flower	16	16	0.2755065970559217	--
Magnolia kobus	Flower	16	16	0.2755065970559217	--
Magnolia officinalis	Bark	8	8	0.6681531047810607	--
Malus domestica	Fruit	0.24	4	-0.6863742487163819	--
Mangifera indica	Fruit	1.1	16.6	0.2942767486189969	--
Manihot esculenta	Root	1	3.8	-0.876845633699047	--
Mentha arvensis var. piperascens	Plant	20	20	0.6626022066114992	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Mentha spicata	Plant	1	2	0.33037825900684764	--
Mentha x piperita	Plant	3	15	0.10889562727041327	--
Momordica charantia	Fruit	30	30	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

Plant	Part	Low PPM	High PPM	StdDev	Reference
Morinda sp	Root	6	7	-0.5225828267832762	--
Moringa oleifera	Leaf	1	4	-0.6510387463181428	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Morus alba	Root Bark	6	6	-0.8436614877321073	--
Murraya sp	Fruit	0.76	6	-0.5307153602504487	--
Musa x paradisiaca	Fruit	0.76	6	-0.5307153602504487	--
Myristica fragrans	Aril	6	25		--
Myristica fragrans	Seed	10	21	0.5610574180917248	--
Nardostachys chinensis	Rhizome	10	10	-0.12058216844617241	--
Nasturtium officinale	Plant	--	--		--
Nelumbo nucifera	Seed	17	17	0.19823790075523398	--
Notopterygium incisum	Rhizome	7	7	-0.7923971069319881	--
Nyssa sylvatica	Leaf	1.25	182	4.2474466119155	--
Nyssa sylvatica	Stem	0.3	31	-0.4541653961564738	--
Ocimum basilicum	Leaf	14	14	-0.3758429396758034	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	11	13	-0.1645816165812568	--
Ophiopogon japonicus	Tuber	3	4	-1.1062652099209485	--
Opuntia ficus-indica	Seed	3.4	3.4	-1.0353484581888348	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Origanum majorana	Plant	11	11	-0.33406963620245544	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum vulgare	Plant	9	9	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)
Pachyrhizus erosus	Tuber	4	25	1.8594670549735095	--
Paeonia lactiflora	Root	3	6	-0.6332899539444546	--
Paeonia moutan	Root Bark	5	6	-0.8436614877321073	--
Paeonia suffruticosa	Root Bark	5	6	-0.8436614877321073	--
Panax ginseng	Root	17	17	0.5844884448285068	--
Panax ginseng	Fruit	--	--		--
Panax ginseng	Inflorescence	--	--		--
Panax ginseng	Flower	--	--		--
Panax ginseng	Leaf	--	--		--
Panax ginseng	Stem	--	--		--
Panax japonicus	Rhizome	6	6	-1.0163354197605934	--
Panax quinquefolius	Plant	6	13	-0.11258700446602109	--
Papaver somniferum	Seed	16	23	0.7424671767599702	--
Pastinaca sativa	Root	0.8	12	0.030952809022615355	--
Peganum harmala	Plant	9	9	-0.5555522679388898	--
Perilla frutescens	Plant	17	17	0.33037825900684764	Suziki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Persea americana	Fruit	2	11	-0.14156813908561597	--
Petasites japonicus	Plant	15	16	0.21963694313863044	Chem. & Pharm. Bull. 38: 2205.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Petroselinum crispum	Plant	1	12	-0.22332832033423827	--
Peucedanum decursivum	Plant	9	10	-0.4448109520706726	--
Phaseolus acutifolius	Seed	10	11	-0.34599137524950224	--
Phaseolus coccineus	Seed	0.7	0.7	-1.2802516323909663	--
Phaseolus lunatus	Seed	3	15	0.01682814208698858	--
Phaseolus vulgaris	Fruit	0.62	45	2.504632964835247	--
Phaseolus vulgaris	Seed	2	15	0.01682814208698858	--
Phellodendron amurense	Bark	6	6	-0.534522483824849	--
Phoenix dactylifera	Fruit	2	4	-0.6863742487163819	--
Phoenix dactylifera	Seed	0.6	2	-1.1623352892566066	Abstract (See species file)
Phyllanthus emblica	Fruit	3	14	0.0919201936132837	--
Physalis ixocarpa	Fruit	1	16	0.24757908207921683	--
Physalis peruviana	Fruit	2	11	-0.14156813908561597	--
Pimenta dioica	Bud	5	10		USDA's Ag Handbook 8 and sequelae)
Pimpinella anisum	Seed	9	9	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
Pinellia ternata	Tuber	2	4	-1.1062652099209485	--
Pinus echinata	Shoot	0.8	2.1	-1.4250069598599244	--
Pinus edulis	Seed	10	12	-0.2552864959153795	--
Pinus pinea	Seed	10	11	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Piper nigrum	Fruit	9	20	0.5588968590110831	--
Pistacia vera	Seed	11	33	1.6495159701011972	--
Pisum sativum	Seed	2	10	-0.43669625458362493	--
Plantago asiatica	Plant	14	14	-0.0018456885978039082	--
Platycodon grandiflorum	Root	6	10	-0.19046144529974124	--
Polygala tenuifolia	Root	8	9	-0.30116857246091955	--
Polygonum multiflorum	Rhizome	5	5	-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.
Polystichum polyblepharum	Plant	10	10	-0.4448109520706726	--
Portulaca oleracea	Herb	2	19		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prunella vulgaris	Flower	8	8	-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.
Prunus armeniaca	Seed	1	16	0.10753302142111128	--
Prunus domestica	Fruit	0.33	34	1.6485090782726148	--
Prunus dulcis	Seed	1	11	-0.34599137524950224	--
Prunus persica	Fruit	0.3	30	1.3371913013407486	--
Prunus persica	Seed	10	10	-0.43669625458362493	--
Prunus serotina	Leaf	0.8	29	0.03695077028770601	--
Prunus serotina	Stem	1.3	378	2.514105431310182	--
Psidium guajava	Fruit	1	9	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Psophocarpus tetragonolobus	Seed	28	33	1.6495159701011972	--
Pueraria pseudohirsuta	Root	12	13	0.14165993618379366	--
Pulsatilla chinensis	Root	9	9	-0.30116857246091955	--
Punica granatum	Fruit	2	2	-0.8420331371823149	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pyrus communis	Fruit	0.45	11.1	-0.1337851946623192	--
Quercus alba	Stem	1.2	15.2	-0.5893200908941485	--
Quercus phellos	Stem	1	29	-0.4712735853637744	--
Quercus rubra	Seed	7	7	-0.7088108925859931	--
Quercus rubra	Stem	1.2	13.2	-0.6064282801014491	--
Quercus stellata	Stem	1.2	42	-0.36007035551632044	--
Quercus velutina	Stem	1.5	31	-0.4541653961564738	--
Quisqualis indica	Fruit	13	13	0.014090749380317144	--
Raphanus sativus	Root	0.3	8	-0.41187569962209786	--
Raphanus sativus	Seed	6	6	-0.7995157719201157	--
Rehmannia glutinosa	Root	4	4	-0.8547042082668113	--
Rheum palmatum	Rhizome	6	10	-0.12058216844617241	--
Rheum rhabarbarum	Pt	0.2	5.2	-0.9999999999999998	--
Rhizophora mangle	Leaf	35	35	0.20206825427310968	--
Rhus copallina	Leaf	0.8	19	-0.23824503635463365	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rhus copallina	Stem	1.8	30	-0.4627194907601241	--
Rhus glabra	Stem	0.6	20	-0.5482604367966272	--
Ribes nigrum	Fruit	0.6	7	-0.45288591601748224	--
Ribes rubrum	Fruit	0.5	7	-0.45288591601748224	--
Ribes uva-crispa	Fruit	0.4	6	-0.5307153602504487	--
Rosa canina	Fruit	1.8	36	1.804167966738548	--
Rosa laevigata	Fruit	8	9	-0.2972270275515491	--
Rosmarinus officinalis	Plant	5	6	-0.8877762155435414	USDA's Ag Handbook 8 and sequelae)
Rosmarinus officinalis	Leaf	3	6	-0.23824503635463365	USDA's Ag Handbook 8 and sequelae)
Rubia cordifolia	Root	15	15	0.36307419050615025	--
Rubus chamaemorus	Fruit	0.7	5.6	-0.5618471379436353	--
Rubus chingii	Fruit	12	12	-0.06373869485264942	--
Rubus idaeus	Fruit	0.7	6	-0.5307153602504487	Revised USDA data received 1993.
Rumex acetosa	Leaf	3	30	0.06447035095193995	--
Salvia miltiorrhiza	Root	8	8	-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.
Salvia officinalis	Leaf	7	8	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
Santalum acuminatum	Fruit	2	9	-0.2972270275515491	--
Sassafras albidum	Leaf	1.6	102	2.045880158776784	--
Sassafras albidum	Stem	0.2	56	-0.24031303106521615	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Satureja hortensis	Leaf	8	9	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Satureja montana	Leaf	8	9	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Schisandra chinensis	Fruit	5	11	-0.14156813908561597	--
Schizonepeta tenuifolia	Plant	23	23	0.9948261542161503	--
Scrophularia buergeriana	Root	5	6	-0.6332899539444546	--
Scutellaria baicalensis	Root	13	18	0.6951955719896852	--
Secale cereale	Seed	4	5	-0.8902206512542384	USDA's Ag Handbook 8 and sequelae)
Sechium edule	Leaf	1.8	10	-0.4859212623327392	--
Senna obtusifolia	Seed	9	32	1.5588110907670745	--
Senna occidentalis	Seed	15	15	0.01682814208698858	--
Sesamum indicum	Plant	14	56	4.649289577867317	--
Siegesbeckia orientalis	Plant	9	10	-0.4448109520706726	--
Simmondsia chinensis	Seed	10	10	-0.43669625458362493	--
Sinapis alba	Seed	6	8	-0.6181060132518703	--
Sinomenium acutum	Rhizome	16	16	1.223047708525459	--
Solanum melongena	Fruit	0.6	20	0.5588968590110831	--
Solanum tuberosum	Tuber	0.48	14	0.30598824955260295	--
Sophora angustifolia	Root	5	10	-0.19046144529974124	--
Sophora subprostrata	Root	5	5	-0.7439970811056329	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sorbus aucubaria	Fruit	0.8	4	-0.6863742487163819	--
Spinacia oleracea	Plant	0.1	24	1.1055674700843674	--
Spondias dulcis	Fruit	0.9	0.9	-0.9276455258385781	--
Spondias tuberosa	Fruit	0.63	0.63	-0.948659475781479	--
Symphoricarpos orbiculatus	Stem	3.8	132	0.40979815881220705	--
Syzygium aromaticum	Flower	3	9	-0.8371161987468383	--
Syzygium aromaticum	Fruit	3	9	-0.2972270275515491	--
Syzygium cumini	Fruit	2.3	14	0.0919201936132837	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
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.
Tamarindus indica	Leaf	21	21	-0.18320587502616575	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Taraxacum mongolicum	Plant	19	19	0.5518608907432819	--
Taraxacum officinale	Leaf	4	12	0.5873423835723849	--
Taraxacum officinale	Root	3	28	1.8022668436014682	--
Tephrosia candida	Plant	11.2	11.2	-0.31192137302881207	--
Tetrapanax papyrifera	Pith	8	8		--
Theobroma cacao	Seed	24	24	0.8331720560940928	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Thymus vulgaris	Plant	8	9	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Trachyspermum ammi	Fruit	9.1	9.1	-0.2894440831282523	--
Tragopogon porrifolius	Root	1	1	-1.1868255897503461	--
Trichosanthes anguina	Fruit	1.1	20	0.5588968590110831	--
Trifolium pratense	Hay	7	18		--
Trigonella foenum-graecum	Leaf	3	3	-0.6785583269823768	--
Trigonella foenum-graecum	Seed	11	11	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)
Triticum aestivum	Plant	2.2	4	-1.1092588472799756	--
Triticum aestivum	Seed	1.1	16.7	0.17102643695499678	--
Tussilago farfara	Flower	20	20	0.911291051800356	--
Urtica dioica	Leaf	2	15	-0.3483233590115694	--
Vaccinium corymbosum	Fruit	0.5	4	-0.6863742487163819	--
Vaccinium macrocarpon	Fruit	0.5	4.7	-0.6318936377533051	USDA's Ag Handbook 8 and sequelae)
Vaccinium myrtillus	Fruit	0.7	6.3	-0.5073665269805587	ACTA AGRIC SCAND SUPPL 22: 1980
Vaccinium vitis-idaea	Fruit	0.7	5.2	-0.5929789156368218	--
Valerianella locusta	Plant	13	13.2	-0.09043874129237772	--
Valerianella radicata	Plant	11.1	11.3	-0.3008472414419902	--
Vicia faba	Fruit	1.7	1.7	-0.8653819704522049	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vigna aconitifolia	Seed	5	9	-0.5274011339177476	--
Vigna angularis	Seed	11	13	-0.1645816165812568	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vigna mungo	Seed	7.2	8	-0.6181060132518703	--
Vigna radiata	Seed	9	13	-0.1645816165812568	USDA's Ag Handbook 8 and sequelae)
Vigna radiata	Sprout Seedling	1	23	1.366529661191855	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	9	10	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	1.3	12	-0.2552864959153795	--
Vitis vinifera	Fruit	0.7	11.6	-0.09487047254583593	--
Xanthosoma sagittifolium	Root	1.9	14	0.25236706334497194	--
Zea mays	Fruit	0	20	0.5588968590110831	--
Zingiber officinale	Rhizome	3	16	1.223047708525459	--
Zingiber officinale	Root	3	16	0.47378131766732856	--
Zizyphus jujuba	Fruit	7	7	-0.45288591601748224	--