

## Dr. Duke's Phytochemical and Ethnobotanical Databases

### List of Plants for COPPER

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Abelmoschus manihot</i>	Leaf	2.5	21.5	-0.1694460846940488	--
<i>Abelmoschus esculentus</i>	Fruit	1.0	9.0	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)
<i>Acanthopanax gracilistylis</i>	Root Bark		14.0	0.997054485501582	--
<i>Achyranthes bidentata</i>	Root	6.0	11.0	-0.07975431813856294	--
<i>Aconitum carmichaelii</i>	Tuber		12.0	0.02353755765789269	--
<i>Acorus calamus</i>	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.
<i>Actaea dahurica</i>	Rhizome		8.0	-0.5684587941033828	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
<i>Akebia quinata</i>	Stem		7.0	-0.659463666644081	--
<i>Albizia julibrissin</i>	Bark	5.0	6.0	-0.534522483824849	--
<i>Alisma plantago-aquatica</i>	Rhizome	11.0	15.0	0.9991093956968536	--
<i>Allium cepa</i>	Seed		18.2	0.3070837559561808	--
<i>Allium schoenoprasum</i>	Leaf	1.0	24.0	-0.10064713303346391	Revised USDA data received 1993.
<i>Allium cepa</i>	Bulb	0.3	11.0	0.10619884881071792	--
<i>Allium sativum</i> var. <i>sativum</i>	Bulb	1.4	9.7	-1.2743861857286207	--
<i>Alocasia macrorrhiza</i>	Root	0.7	2.4	-1.0318356117246965	--
<i>Amaranthus</i> sp.	Leaf	1.0	19.0	-0.23824503635463365	--
<i>Amomum xanthioides</i>	Seed		8.0	-0.6181060132518703	--
<i>Amorphophallus campanulatus</i>	Root	1.8	8.0	-0.41187569962209786	--
<i>Amphicarpaea bracteata</i>	Shoot		20.0	-0.4121297428582309	--
<i>Anacardium occidentale</i>	Seed	22.0	37.0	2.0123354874376878	--
<i>Ananas comosus</i>	Fruit	1.0	8.8	-0.31279291639814205	USDA's Ag Handbook 8 and sequelae)
<i>Anemarrhena asphodeloides</i>	Rhizome	5.0	9.0	-0.34452048127477763	--
<i>Anethum graveolens</i>	Plant	1.7	17.0	0.33037825900684764	--
<i>Anethum graveolens</i>	Seed		8.0	-0.6181060132518703	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anethum graveolens	Fruit		8.0	-0.3750564717845157	--
Angelica dahurica	Root		10.0	-0.19046144529974124	--
Angelica sinensis	Root		5.0	-0.7439970811056329	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Angelica laxiflora	Root		9.0	-0.30116857246091955	--
Annona muricata	Fruit		1.6	-0.8731649148755015	--
Anthriscus cerefolium	Leaf		4.4	-0.6400309140524493	--
Apium graveolens	Root	0.7	11.0	-0.07975431813856294	ACTA AGRIC SCAND SUPPL 22: 1980
Apium graveolens	Pt	0.4	7.0	1.0000000000000007	USDA's Ag Handbook 8 and sequelae)
Apium graveolens	Seed		14.0	-0.07387673724713412	USDA's Ag Handbook 8 and sequelae)
Arachis hypogaea	Seed	8.6	11.0	-0.34599137524950224	--
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.
Areca catechu	Seed		15.0	0.01682814208698858	--
Arisaema consanguineum	Rhizome		7.0	-0.7923971069319881	--
Aristolochia debilis	Fruit		14.0	0.0919201936132837	--
Armoracia rusticana	Root	1.0	9.0	-0.30116857246091955	--
Artemisia dracunculus	Plant		7.0	-0.7770348996753241	USDA's Ag Handbook 8 and sequelae)
Artemisia capillaris	Plant		8.0	-0.666293583807107	--
Artemisia vulgaris	Plant	18.0	20.0	0.6626022066114992	Chem. & Pharm. Bull. 38: 2205.
Artemisia herba-alba	Plant	7.0	14.0	-0.0018456885978039082	--
Artocarpus altilis	Fruit	0.8	7.5	-0.41397119390099896	--
Artocarpus heterophyllus	Fruit	1.8	7.0	-0.45288591601748224	--
Asiasarum sieboldii	Root	13.0	14.0	0.25236706334497194	--
Asiasarum heterotropoides	Root	13.0	14.0	0.25236706334497194	--
Asparagus officinalis	Shoot	1.0	24.0	-0.185788465315953	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Asparagus lucidus</i>	Root	4.0	5.0	-0.7439970811056329	--
<i>Astragalus membranaceus</i>	Root	1.0	9.0	-0.30116857246091955	--
<i>Atractylodes ovata</i>	Rhizome	8.0	18.0	1.6709243341826694	--
<i>Atractylodes lancea</i>	Rhizome		12.0	0.327294457211038	--
<i>Avena sativa</i>	Seed	2.4	25.7	0.987370350962101	Jim Duke's personal files.*
<i>Avena sativa</i>	Plant		4.0	-1.1092588472799756	Jim Duke's personal files.*
<i>Averrhoa carambola</i>	Fruit	1.0	15.0	0.16974963784625027	USDA's Ag Handbook 8 and sequelae)
<i>Belamcanda chinensis</i>	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.
<i>Bertholletia excelsa</i>	Seed		18.0	0.2889427800893567	USDA's Ag Handbook 8 and sequelae)
<i>Beta vulgaris</i>	Root	0.6	17.0	0.5844884448285068	--
<i>Blechnum orientale</i>	Rhizome		8.0	-0.5684587941033828	--
<i>Bletilla striata</i>	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.
<i>Boehmeria nivea</i>	Plant		13.0	-0.11258700446602109	--
<i>Brassica napus</i> var. <i>napobrassica</i>	Root	0.2	4.0	-0.8547042082668113	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Brassica rapa</i>	Seed	5.0	6.0	-0.7995157719201157	--
<i>Brassica oleracea</i> var. <i>viridis</i> l.	Leaf	2.0	43.0	0.42222489958698123	--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Leaf	0.68	52.0	0.6699011255650867	--
<i>Brassica juncea</i>	Leaf	1.3	14.0	-0.3758429396758034	--
<i>Brassica pekinensis</i>	Leaf	2.85	3.15	-0.6744303898827417	--
<i>Brassica oleracea</i> var. <i>capitata</i> l.	Leaf	0.3	87.0	1.6330864488132748	--
<i>Brassica nigra</i>	Leaf	0.58	11.2	-0.4528977655356585	USDA's Ag Handbook 8 and sequelae)
<i>Brassica oleracea</i> var. <i>italica</i>	Leaf	0.68	52.0	0.6699011255650867	--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Flower	0.3	8.0	-0.9960623124329469	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica rapa	Root	0.4	4.0	-0.8547042082668113	--
Brassica oleracea var. sabellica l.	Leaf	3.0	20.0	-0.2107254556903997	--
Brassica oleracea var. gemmifera	Leaf	1.0	5.0	-0.6235191656539089	USDA's Ag Handbook 8 and sequelae)
Broussonetia papyrifera	Fruit		12.0	-0.06373869485264942	--
Bupleurum chinense	Root	13.0	16.0	0.47378131766732856	--
Cajanus cajan	Seed	10.0	12.0	-0.2552864959153795	--
Camellia sinensis	Leaf		20.0	-0.2107254556903997	--
Canavalia ensiformis	Seed	7.0	8.0	-0.6181060132518703	--
Capsicum frutescens	Fruit	2.0	14.0	0.0919201936132837	--
Capsicum annuum	Fruit	0.5	20.0	0.5588968590110831	--
Carica papaya	Fruit	0.1	5.0	-0.6085448044834153	--
Carthamus tinctorius	Flower	20.0	26.0	1.8649677339170079	--
Carum carvi	Fruit	9.0	13.8	0.07635430476669072	--
Carum carvi	Seed	9.0	18.0	0.2889427800893567	--
Carya ovata	Shoot	1.25	45.0	1.002503241781006	--
Carya glabra	Shoot	0.9	55.0	1.568356435636701	--
Carya ovata	Seed		7.8	-0.6362469891186951	--
Carya illinoensis	Seed		15.0	0.01682814208698858	--
Cassia tora	Seed	8.0	10.0	-0.43669625458362493	--
Castanea mollissima	Seed	4.0	6.0	-0.7995157719201157	--
Castanea dentata	Seed	4.0	7.0	-0.7088108925859931	--
Castanea sativa	Seed	2.0	5.0	-0.8902206512542384	--
Celosia cristata	Flower		9.0	-0.8371161987468383	--
Chaenomeles lagenaria	Fruit		24.0	0.8702146359429493	--
Chamissoa altissima	Leaf	2.0	23.0	-0.12816671369769786	Tramil
Chenopodium album	Seed		5.0	-0.8902206512542384	--
Cicer arietinum	Seed	8.0	10.0	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cichorium endivia	Leaf	1.0	16.8	-0.2987881138159482	--
Cichorium intybus	Root				--
Cimicifuga dahurica	Rhizome		8.0	-0.5684587941033828	--
Cinnamomum verum	Bark	4.9	9.0	1.2694908990840155	--
Cinnamomum burmannii	Bark		5.0	-1.1358602781278038	--
Cinnamomum sieboldii	Root Bark		9.0	-0.15339299776947393	--
Cinnamomum aromaticum	Bark	2.0	10.0	1.8708286933869704	--
Cinnamomum verum	Leaf		10.9	-0.4611536397349287	--
Cinnamomum sieboldii	Bark		7.0	0.06681531047810586	--
Cistanche salsa	Plant		8.0	-0.666293583807107	--
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.
Citrus reticulata	Fruit	0.0	4.8	-0.6241106933300086	--
Citrus paradisi	Fruit	0.0	7.7	-0.3984053050544054	--
Citrus medica	Fruit		9.0	-0.2972270275515491	--
Citrus aurantium	Fruit	4.0	10.0	-0.21939758331858253	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Citrus sinensis	Fruit	0.44	5.5	-0.569630082366932	--
Citrus aurantiifolia	Fruit	1.0	6.0	-0.5307153602504487	USDA's Ag Handbook 8 and sequelae)
Cnidium officinale	Rhizome		9.0	-0.34452048127477763	--
Cocos nucifera	Seed	3.2	33.0	1.6495159701011972	--
Coix lacryma-jobi	Seed		5.0	-0.8902206512542384	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Colocasia esculenta	Leaf		1.5	-0.7198376979787277	--
Colocasia esculenta	Root	1.6	8.0	-0.41187569962209786	--
Commiphora wightii	Inflorescence				Jim Duke's personal files.
Coptis japonica	Rhizome	11.0	17.0	1.4469860213540642	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Coptis chinensis</i>	Rhizome	11.0	17.0	1.4469860213540642	--
<i>Coptis</i> spp	Rhizome	11.0	17.0	1.4469860213540642	--
<i>Coriandrum sativum</i>	Leaf		18.0	-0.2657646170188676	USDA's Ag Handbook 8 and sequelae)
<i>Coriandrum sativum</i>	Fruit	10.0	13.0	0.014090749380317144	--
<i>Cornus officinalis</i>	Fruit	5.0	6.0	-0.5307153602504487	--
<i>Corylus avellana</i>	Seed	13.0	82.0	6.094055057473209	--
<i>Crataegus laevigata</i>	Flower				--
<i>Crataegus cuneata</i>	Fruit		8.0	-0.3750564717845157	--
<i>Crataegus laevigata</i>	Fruit				--
<i>Crocus sativus</i>	Silk Stigma Style		3.0		USDA's Ag Handbook 8 and sequelae)
<i>Cucumis sativus</i>	Fruit	0.3	42.0	2.2711446321363473	--
<i>Cucumis melo</i>	Fruit	0.4	7.7	-0.3984053050544054	--
<i>Cucurbita</i> spp	Fruit	0.7	12.0	-0.06373869485264942	--
<i>Cucurbita pepo</i>	Seed	14.0	25.0	0.9238769354282156	--
<i>Cucurbita maxima</i>	Leaf	4.2	30.0	0.06447035095193995	--
<i>Cuminum cyminum</i>	Seed	9.0	16.0	0.10753302142111128	--
<i>Cuminum cyminum</i>	Fruit	9.0	16.0	0.24757908207921683	--
<i>Curcuma longa</i>	Rhizome	6.0	17.0	1.4469860213540642	--
<i>Cynanchum atratum</i>	Root		12.0	0.030952809022615355	--
<i>Cynara cardunculus</i>	Flower	2.0	24.0	1.54707550654479	USDA's Ag Handbook 8 and sequelae)
<i>Cyperus rotundus</i>	Rhizome		10.0	-0.12058216844617241	--
<i>Cyrtosperma chamissonis</i>	Root	0.9	4.4	-0.8104213574023399	--
<i>Daucus carota</i>	Root	0.3	18.0	0.6951955719896852	--
<i>Dendrobium nobile</i>	Stem		9.0	-0.6423554774367803	--
<i>Dioscorea alata</i>	Root	0.5	10.7	-0.1129664562869169	--
<i>Dioscorea bulbifera</i>	Rhizome		8.0	-0.5684587941033828	--
<i>Diospyros virginiana</i>	Stem	0.2	108.0	0.20449988832459973	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Diospyros virginiana</i>	Leaf	1.0	7.5	-0.554720213993324	--
<i>Drynaria fortunei</i>	Rhizome		10.0	-0.12058216844617241	--
<i>Elaeagnus umbellatus</i>	Fruit	2.0	13.0	0.014090749380317144	--
<i>Elettaria cardamomum</i>	Fruit	3.8	15.4	0.20088141553943706	--
<i>Eleutherococcus senticosus</i>	Root				--
<i>Eleutherococcus senticosus</i>	Leaf				--
<i>Eleutherococcus senticosus</i>	Stem				--
<i>Eleutherococcus senticosus</i>	Flower				--
<i>Ephedra</i> spp	Plant		2.0	-1.33074147901641	--
<i>Equisetum hyemale</i>	Plant		4.0	-1.1092588472799756	--
<i>Eriobotrya japonica</i>	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.
<i>Eriocaulon</i> sp	Leaf		9.0	-0.5134408429969731	--
<i>Erythroxylum coca</i>	Leaf	2.2	13.0	-0.40336252034003733	--
<i>Erythroxylum novogranatense</i>	Leaf	2.7	2.9	-0.6813102850488002	--
<i>Erythroxylum novogranatense</i>	Leaf	2.5	2.7	-0.6868142011816469	--
<i>Eucommia ulmoides</i>	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.
<i>Euodia rutaecarpa</i>	Fruit		16.0	0.24757908207921683	--
<i>Eupatorium odoratum</i>	Leaf		35.0	0.20206825427310968	Tramil
<i>Fallopia japonica</i>	Plant	9.0	10.0	-0.4448109520706726	Chem. & Pharm. Bull. 38: 2205.
<i>Ficus carica</i>	Fruit	0.6	3.6	-0.7175060264095684	USDA's Ag Handbook 8 and sequelae)
<i>Firmiana simplex</i>	Seed		15.0	0.01682814208698858	--
<i>Foeniculum vulgare</i>	Fruit	8.0	24.0	0.8702146359429493	--
<i>Foeniculum vulgare</i>	Seed	8.0	24.0	0.8331720560940928	--
<i>Forsythia suspensa</i>	Fruit		19.0	0.4810674147781165	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Fragaria spp	Fruit	0.4	17.0	0.32540852631218337	USDA's Ag Handbook 8 and sequelae)
Fraxinus rhynchophylla	Bark		6.0	-0.534522483824849	--
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.
Gardenia jasminoides	Fruit	10.0	13.0	0.014090749380317144	--
Gastrodia elata	Rhizome		4.0	-1.4642120454178038	--
Genipa americana	Seed				--
Genipa americana	Fruit		1.0	-0.9198625814152814	--
Gentiana scabra	Root		18.0	0.6951955719896852	--
Geranium thunbergii	Plant		23.0	0.9948261542161503	--
Ginkgo biloba	Seed	3.0	6.0	-0.7995157719201157	USDA's Ag Handbook 8 and sequelae)
Glechoma hederacea	Plant		11.0	-0.33406963620245544	Chem. & Pharm. Bull. 38: 2205.
Glehnia littoralis	Root		15.0	0.36307419050615025	--
Glycine max	Seed	4.3	18.0	0.2889427800893567	--
Glycyrrhiza uralensis	Root	13.0	14.0	0.25236706334497194	--
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
Helianthus annuus	Seed	15.0	19.0	0.3796476594234794	USDA's Ag Handbook 8 and sequelae)
Hibiscus sabdariffa	Flower	5.6	6.2	-1.2821653170679421	--
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.
Hordeum vulgare	Seed	1.0	20.0	0.4703525387576021	Jim Duke's personal files.*
Houttuynia cordata	Plant		26.0	1.3270501018208019	Suziki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Hyoscyamus niger	Seed		26.0	1.0145818147623382	--
Inula helenium	Plant				--



Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Ipomoea batatas</i>	Root	1.5	7.0	-0.5225828267832762	--
<i>Ipomoea aquatica</i>	Leaf	2.6	19.0	-0.23824503635463365	--
<i>Isatis tinctoria</i>	Root		10.0	-0.19046144529974124	--
<i>Juglans nigra</i>	Seed	10.0	20.0	0.4703525387576021	--
<i>Juglans cinerea</i>	Seed	4.0	8.4	-0.5818240615182214	--
<i>Juglans regia</i>	Seed	3.0	15.0	0.01682814208698858	--
<i>Juncus effusus</i>	Pith	5.0	8.0		--
<i>Juniperus virginiana</i>	Shoot	0.8	17.6	-0.5479345093835976	--
<i>Jussiaea repens</i>	Plant		15.0	0.10889562727041327	--
<i>Lablab purpureus</i>	Seed	9.0	16.0	0.10753302142111128	--
<i>Lactuca sativa</i>	Leaf	0.36	29.0	0.03695077028770601	--
<i>Laurus nobilis</i>	Leaf		4.0	-0.6510387463181428	USDA's Ag Handbook 8 and sequelae)
<i>Lens culinaris</i>	Sprout Seedling	3.3	12.0	-0.36791183185934606	USDA's Ag Handbook 8 and sequelae)
<i>Lens culinaris</i>	Seed	8.0	9.0	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
<i>Lepidium meyenii</i>	Root		60.0	5.344894912759173	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
<i>Ligustrum lucidum</i>	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.
<i>Ligustrum japonicum</i>	Fruit		12.0	-0.06373869485264942	--
<i>Linum usitatissimum</i>	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.
<i>Liquidambar styraciflua</i>	Leaf	2.8	164.0	3.752094159959289	--
<i>Liquidambar styraciflua</i>	Stem	0.6	360.0	2.3601317284444767	--
<i>Lonicera japonica</i>	Flower		13.0	-0.20133174400240403	--
<i>Lophatherum gracile</i>	Plant	8.0	9.0	-0.5555522679388898	--
<i>Lupinus albus</i>	Seed	10.0	12.0	-0.2552864959153795	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
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.
Lycopersicon esculentum	Fruit	0.4	100.0	6.785252397648407	--
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.
Lygodium japonicum	Pollen Or Spore		13.0		--
Macadamia spp	Seed	2.0	3.0	-1.071630409922484	USDA's Ag Handbook 8 and sequelae)
Magnolia fargesii	Flower		16.0	0.2755065970559217	--
Magnolia officinalis	Bark		8.0	0.6681531047810607	--
Magnolia denudata	Flower		16.0	0.2755065970559217	--
Magnolia kobus	Flower		16.0	0.2755065970559217	--
Malus domestica	Fruit	0.24	4.0	-0.6863742487163819	--
Mangifera indica	Fruit	1.1	16.6	0.2942767486189969	--
Manihot esculenta	Root	1.0	3.8	-0.876845633699047	--
Mentha arvensis var. piperascens	Plant		20.0	0.6626022066114992	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Mentha spicata	Plant	1.0	17.0	0.33037825900684764	--
Mentha x piperita	Plant	3.0	15.0	0.10889562727041327	--
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
Morinda sp	Root	6.0	7.0	-0.5225828267832762	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
Morus alba	Root Bark		6.0	-0.8436614877321073	--
Murraya sp	Fruit	0.76	6.0	-0.5307153602504487	--
Musa x paradisiaca	Fruit	0.76	6.0	-0.5307153602504487	--
Myristica fragrans	Seed	10.0	21.0	0.5610574180917248	--
Myristica fragrans	Aril	6.0	25.0		--
Nardostachys chinensis	Rhizome		10.0	-0.12058216844617241	--
Nasturtium officinale	Plant				--
Nelumbo nucifera	Seed		17.0	0.19823790075523398	--
Notopterygium incisum	Rhizome		7.0	-0.7923971069319881	--
Nyssa sylvatica	Stem	0.3	31.0	-0.4541653961564738	--
Nyssa sylvatica	Leaf	1.25	182.0	4.2474466119155	--
Ocimum basilicum	Leaf		14.0	-0.3758429396758034	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	11.0	13.0	-0.1645816165812568	--
Ophiopogon japonicus	Tuber	3.0	4.0	-1.1062652099209485	--
Opuntia ficus-indica	Seed		3.4	-1.0353484581888348	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Origanum vulgare	Plant		9.0	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)
Origanum majorana	Plant		11.0	-0.33406963620245544	USDA's Ag Handbook 8 and sequelae)
Pachyrhizus erosus	Tuber	4.0	25.0	1.8594670549735095	--
Paeonia lactiflora	Root	3.0	6.0	-0.6332899539444546	--
Paeonia suffruticosa	Root Bark	5.0	6.0	-0.8436614877321073	--
Paeonia moutan	Root Bark	5.0	6.0	-0.8436614877321073	--
Panax ginseng	Root		17.0	0.5844884448285068	--
Panax ginseng	Flower				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Panax ginseng</i>	Stem				--
<i>Panax quinquefolius</i>	Plant	6.0	13.0	-0.11258700446602109	--
<i>Panax ginseng</i>	Inflorescence				--
<i>Panax ginseng</i>	Leaf				--
<i>Panax japonicus</i>	Rhizome		6.0	-1.0163354197605934	--
<i>Panax ginseng</i>	Fruit				--
<i>Papaver somniferum</i>	Seed	16.0	23.0	0.7424671767599702	--
<i>Pastinaca sativa</i>	Root	0.8	12.0	0.030952809022615355	--
<i>Peganum harmala</i>	Plant		9.0	-0.555552267938898	--
<i>Perilla frutescens</i>	Plant		17.0	0.33037825900684764	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
<i>Persea americana</i>	Fruit	2.0	11.0	-0.14156813908561597	--
<i>Petasites japonicus</i>	Plant	15.0	16.0	0.21963694313863044	Chem. & Pharm. Bull. 38: 2205.
<i>Petroselinum crispum</i>	Plant	1.0	12.0	-0.22332832033423827	--
<i>Peucedanum decursivum</i>	Plant	9.0	10.0	-0.4448109520706726	--
<i>Phaseolus lunatus</i>	Seed	3.0	15.0	0.01682814208698858	--
<i>Phaseolus vulgaris</i>	Seed	2.0	15.0	0.01682814208698858	--
<i>Phaseolus coccineus</i>	Seed		0.7	-1.2802516323909663	--
<i>Phaseolus acutifolius</i>	Seed	10.0	11.0	-0.34599137524950224	--
<i>Phaseolus vulgaris</i>	Fruit	0.62	45.0	2.504632964835247	--
<i>Phellodendron amurense</i>	Bark		6.0	-0.534522483824849	--
<i>Phoenix dactylifera</i>	Seed	0.6	2.0	-1.1623352892566066	Abstract (See species file)
<i>Phoenix dactylifera</i>	Fruit	2.0	4.0	-0.6863742487163819	--
<i>Phyllanthus emblica</i>	Fruit	3.0	14.0	0.0919201936132837	--
<i>Physalis peruviana</i>	Fruit	2.0	11.0	-0.14156813908561597	--
<i>Physalis ixocarpa</i>	Fruit	1.0	16.0	0.24757908207921683	--
<i>Pimenta dioica</i>	Bud	5.0	10.0		USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pimpinella anisum	Seed		9.0	-0.5274011339177476	USDA's Ag Handbook 8 and sequelae)
Pinellia ternata	Tuber	2.0	4.0	-1.1062652099209485	--
Pinus echinata	Shoot	0.8	2.1	-1.4250069598599244	--
Pinus pinea	Seed	10.0	11.0	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)
Pinus edulis	Seed	10.0	12.0	-0.2552864959153795	--
Piper nigrum	Fruit	9.0	20.0	0.5588968590110831	--
Pistacia vera	Seed	11.0	33.0	1.6495159701011972	--
Pisum sativum	Seed	2.0	10.0	-0.43669625458362493	--
Plantago asiatica	Plant		14.0	-0.0018456885978039082	--
Platycodon grandiflorum	Root	6.0	10.0	-0.19046144529974124	--
Polygala tenuifolia	Root	8.0	9.0	-0.30116857246091955	--
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.
Polystichum polyblepharum	Plant		10.0	-0.4448109520706726	--
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.
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.
Prunus dulcis	Seed	1.0	11.0	-0.34599137524950224	--
Prunus serotina	Leaf	0.8	29.0	0.03695077028770601	--
Prunus persica	Seed		10.0	-0.43669625458362493	--
Prunus domestica	Fruit	0.33	34.0	1.6485090782726148	--
Prunus persica	Fruit	0.3	30.0	1.3371913013407486	--
Prunus armeniaca	Seed	1.0	16.0	0.10753302142111128	--
Prunus serotina	Stem	1.3	378.0	2.514105431310182	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Psidium guajava	Fruit	1.0	9.0	-0.2972270275515491	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Seed	28.0	33.0	1.6495159701011972	--
Pueraria pseudohirsuta	Root	12.0	13.0	0.14165993618379366	--
Pulsatilla chinensis	Root		9.0	-0.30116857246091955	--
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.
Pyrus communis	Fruit	0.45	11.1	-0.1337851946623192	--
Quercus stellata	Stem	1.2	42.0	-0.36007035551632044	--
Quercus phellos	Stem	1.0	29.0	-0.4712735853637744	--
Quercus rubra	Stem	1.2	13.2	-0.6064282801014491	--
Quercus alba	Stem	1.2	15.2	-0.5893200908941485	--
Quercus velutina	Stem	1.5	31.0	-0.4541653961564738	--
Quercus rubra	Seed		7.0	-0.7088108925859931	--
Quisqualis indica	Fruit		13.0	0.014090749380317144	--
Raphanus sativus	Root	0.3	8.0	-0.41187569962209786	--
Raphanus sativus	Seed		6.0	-0.7995157719201157	--
Rehmannia glutinosa	Root		4.0	-0.8547042082668113	--
Rheum palmatum	Rhizome	6.0	10.0	-0.12058216844617241	--
Rheum rhabarbarum	Pt	0.2	5.2	-0.9999999999999998	--
Rhizophora mangle	Leaf		35.0	0.20206825427310968	--
Rhus copallina	Leaf	0.8	19.0	-0.23824503635463365	--
Rhus glabra	Stem	0.6	20.0	-0.5482604367966272	--
Rhus copallina	Stem	1.8	30.0	-0.4627194907601241	--
Ribes nigrum	Fruit	0.6	7.0	-0.45288591601748224	--
Ribes uva-crispa	Fruit	0.4	6.0	-0.5307153602504487	--
Ribes rubrum	Fruit	0.5	7.0	-0.45288591601748224	--
Rosa canina	Fruit	1.8	36.0	1.804167966738548	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosa laevigata	Fruit	8.0	9.0	-0.2972270275515491	--
Rosmarinus officinalis	Plant	5.0	6.0	-0.8877762155435414	USDA's Ag Handbook 8 and sequelae)
Rosmarinus officinalis	Leaf	3.0	19.0	-0.23824503635463365	USDA's Ag Handbook 8 and sequelae)
Rubia cordifolia	Root		15.0	0.36307419050615025	--
Rubus chingii	Fruit		12.0	-0.06373869485264942	--
Rubus chamaemorus	Fruit	0.7	5.6	-0.5618471379436353	--
Rubus idaeus	Fruit	0.7	6.0	-0.5307153602504487	Revised USDA data received 1993.
Rumex acetosa	Leaf	3.0	30.0	0.06447035095193995	--
Salvia officinalis	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
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.
Santalum acuminatum	Fruit	2.0	9.0	-0.2972270275515491	--
Sassafras albidum	Leaf	1.6	102.0	2.045880158776784	--
Sassafras albidum	Stem	0.2	56.0	-0.24031303106521615	--
Satureja montana	Leaf	8.0	9.0	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Satureja hortensis	Leaf	8.0	9.0	-0.5134408429969731	USDA's Ag Handbook 8 and sequelae)
Schisandra chinensis	Fruit	5.0	11.0	-0.14156813908561597	--
Schizonepeta tenuifolia	Plant		23.0	0.9948261542161503	--
Scrophularia buergeriana	Root	5.0	6.0	-0.6332899539444546	--
Scutellaria baicalensis	Root	13.0	18.0	0.6951955719896852	--
Secale cereale	Seed	4.0	5.0	-0.8902206512542384	USDA's Ag Handbook 8 and sequelae)
Sechium edule	Leaf	1.8	10.0	-0.4859212623327392	--
Senna obtusifolia	Seed	9.0	32.0	1.5588110907670745	--
Senna occidentalis	Seed		15.0	0.01682814208698858	--
Sesamum indicum	Plant	14.0	56.0	4.649289577867317	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Siegesbeckia orientalis</i>	Plant	9.0	10.0	-0.4448109520706726	--
<i>Simmondsia chinensis</i>	Seed		10.0	-0.43669625458362493	--
<i>Sinapis alba</i>	Seed	6.0	8.0	-0.6181060132518703	--
<i>Sinomenium acutum</i>	Rhizome		16.0	1.223047708525459	--
<i>Solanum tuberosum</i>	Tuber	0.48	14.0	0.30598824955260295	--
<i>Solanum melongena</i>	Fruit	0.6	20.0	0.5588968590110831	--
<i>Sophora angustifolia</i>	Root	5.0	10.0	-0.19046144529974124	--
<i>Sophora subprostrata</i>	Root		5.0	-0.7439970811056329	--
<i>Sorbus aucubaria</i>	Fruit	0.8	4.0	-0.6863742487163819	--
<i>Spinacia oleracea</i>	Plant	0.1	24.0	1.1055674700843674	--
<i>Spondias tuberosa</i>	Fruit		0.63	-0.948659475781479	--
<i>Spondias dulcis</i>	Fruit		0.9	-0.9276455258385781	--
<i>Symphoricarpos orbiculatus</i>	Stem	3.8	132.0	0.40979815881220705	--
<i>Syzygium aromaticum</i>	Fruit	3.0	9.0	-0.2972270275515491	--
<i>Syzygium jambos</i>	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.
<i>Syzygium aromaticum</i>	Flower	3.0	9.0	-0.8371161987468383	--
<i>Syzygium cumini</i>	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.
<i>Tamarindus indica</i>	Leaf		21.0	-0.18320587502616575	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Taraxacum mongolicum</i>	Plant		19.0	0.5518608907432819	--
<i>Taraxacum officinale</i>	Root	3.0	28.0	1.8022668436014682	--
<i>Taraxacum officinale</i>	Leaf	4.0	49.0	0.5873423835723849	--
<i>Tephrosia candida</i>	Plant		11.2	-0.31192137302881207	--
<i>Tetrapanax papyrifera</i>	Pith		8.0		--



Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
Thymus vulgaris	Plant	8.0	9.0	-0.5555522679388898	USDA's Ag Handbook 8 and sequelae)
Trachyspermum ammi	Fruit		9.1	-0.28944440831282523	--
Tragopogon porrifolius	Root		1.0	-1.1868255897503461	--
Trichosanthes anguina	Fruit	1.1	20.0	0.5588968590110831	--
Trifolium pratense	Hay	7.0	18.0		--
Trigonella foenum-graecum	Seed		11.0	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)
Trigonella foenum-graecum	Leaf		3.0	-0.6785583269823768	--
Triticum aestivum	Plant	2.2	4.0	-1.1092588472799756	--
Triticum aestivum	Seed	1.1	16.7	0.17102643695499678	--
Tussilago farfara	Flower		20.0	0.911291051800356	--
Urtica dioica	Leaf	2.0	15.0	-0.3483233590115694	--
Vaccinium macrocarpon	Fruit	0.5	4.7	-0.6318936377533051	USDA's Ag Handbook 8 and sequelae)
Vaccinium vitis-idaea	Fruit	0.7	5.2	-0.5929789156368218	--
Vaccinium corymbosum	Fruit	0.5	4.0	-0.6863742487163819	--
Vaccinium myrtillus	Fruit	0.7	6.3	-0.5073665269805587	ACTA AGRIC SCAND SUPPL 22: 1980
Valerianella radicata	Plant	11.1	11.3	-0.3008472414419902	--
Valerianella locusta	Plant	13.0	13.2	-0.09043874129237772	--
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.
Vigna radiata	Sprout Seedling	1.0	23.0	1.366529661191855	USDA's Ag Handbook 8 and sequelae)
Vigna angularis	Seed	11.0	13.0	-0.1645816165812568	--
Vigna unguiculata	Seed	1.3	12.0	-0.2552864959153795	--
Vigna radiata	Seed	9.0	13.0	-0.1645816165812568	USDA's Ag Handbook 8 and sequelae)
Vigna aconitifolia	Seed	5.0	9.0	-0.5274011339177476	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vigna mungo	Seed	7.2	8.0	-0.6181060132518703	--
Vigna unguiculata	Seed	9.0	10.0	-0.43669625458362493	USDA's Ag Handbook 8 and sequelae)
Vitis vinifera	Fruit	0.7	11.6	-0.09487047254583593	--
Xanthosoma sagittifolium	Root	1.9	14.0	0.25236706334497194	--
Zea mays	Fruit	0.0	20.0	0.5588968590110831	--
Zingiber officinale	Root	3.0	16.0	0.47378131766732856	--
Zingiber officinale	Rhizome	3.0	16.0	1.223047708525459	--
Zizyphus jujuba	Fruit		7.0	-0.45288591601748224	--