

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for ZINC

Plant	Part	Low PPM	High PPM	StdDev	Reference
Abelmoschus manihot	Leaf	12.5	108.0	0.136029778251821	--
Abelmoschus esculentus	Fruit	6.0	60.0	0.8935039976101535	USDA's Ag Handbook 8 and sequelae)
Acanthopanax gracilistylis	Root Bark		19.0	0.4103913408340613	--
Achillea millefolium	Plant				--
Achyranthes bidentata	Root	16.0	51.0	1.1747363149474581	--
Aconitum carmichaelii	Tuber		13.0	-0.8165520080950929	--
Acorus calamus	Rhizome				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		18.0	-0.3944378740006705	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Actaea racemosa	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Agathosma betulina	Leaf		84.0	-0.01125863721237699	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Akebia quinata	Stem		10.0	-1.5798716186082722	--
Albizia julibrissin	Bark	7.0	8.0	-0.4644439198315651	--
Alisma plantago-aquatica	Rhizome	54.0	68.0	-0.12850079606062845	--
Allium ampeloprasum	Plant				--
Allium cepa	Seed		34.0	-0.31604114389068755	--
Allium cepa	Bulb	2.0	53.0	1.4104984605249231	--
Allium sativum var. sativum	Bulb		15.3	-0.616532999263753	--
Allium sativum var. sativum	Root				--
Alocasia macrorrhiza	Root	15.0	51.0	1.1747363149474581	--
Aloe vera	Leaf	11.0	770.0	4.198735238139277	--
Aloe spp.	Leaf		1.1	-0.5200173722949603	--
Althaea officinalis	Root				--
Amaranthus sp.	Leaf	9.0	108.0	0.136029778251821	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Amomum xanthioides	Seed		48.0	0.08142163294753811	--
Amorphophallus konjac	Root				--
Amorphophallus campanulatus	Root	10.0	50.0	1.1309386194117264	--
Amphicarpaea bracteata	Shoot		40.0	-0.7372574394002785	--
Anacardium occidentale	Seed	48.0	57.0	0.336933418057826	--
Ananas comosus	Fruit	0.7	6.0	-0.7311333825482068	USDA's Ag Handbook 8 and sequelae)
Anemarrhena asphodeloides	Rhizome	19.0	27.0	-0.3465691999714629	--
Anethum graveolens	Seed	43.0	66.0	0.592445203168114	USDA's Ag Handbook 8 and sequelae)
Anethum graveolens	Fruit	43.0	66.0	1.0740192620721936	--
Anethum graveolens	Plant	11.0	150.0	0.9651488572052452	--
Angelica laxiflora	Root		15.0	-0.4019807243388883	--
Angelica dahurica	Root		29.0	0.21118701316135757	--
Angelica sinensis	Root				--
Annona muricata	Fruit		4.0	-0.7913051373688869	--
Annona cherimola	Fruit	3.0	15.0	-0.4603604858551467	--
Anthriscus cerefolium	Leaf	9.0	10.0	-0.4653979182269869	--
Apium graveolens	Root	2.8	70.0	2.0068925301263634	ACTA AGRIC SCAND SUPPL 22: 1980
Apium graveolens	Fruit	0.3	1.2	-0.8755455941178387	--
Apium graveolens	Leaf	1.0	44.0	-0.2567393296527067	USDA's Ag Handbook 8 and sequelae)
Apium graveolens	Seed	0.2	89.0	1.2454197651166274	--
Arachis hypogaea	Seed	31.0	35.0	-0.2876509455451	--
Arctium lappa	Root	0.5	2.2	-0.9625912271962561	--
Arctostaphylos uva-ursi	Leaf				--
Areca catechu	Seed		16.0	-0.8270647141112636	--
Arisaema consanguineum	Rhizome		14.0	-0.41571284023587385	--
Aristolochia debilis	Fruit		40.0	0.29178644940335335	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Armoracia rusticana</i>	Root	0.5	2.9	-0.9319328403212439	--
<i>Artemisia herba-alba</i>	Plant	10.0	21.0	-0.30716847131977654	--
<i>Artemisia capillaris</i>	Plant		22.0	-0.2973055462924508	--
<i>Artemisia dracunculus</i>	Plant				--
<i>Artemisia vulgaris</i>	Plant	50.0	90.0	0.3733733555657003	Chem. & Pharm. Bull. 38: 2205.
<i>Artemisia cina</i>	Plant				--
<i>Artocarpus heterophyllus</i>	Fruit	4.0	16.0	-0.4302746084448067	--
<i>Artocarpus altilis</i>	Fruit	1.2	8.0	-0.6709616277275268	--
<i>Asiasarum sieboldii</i>	Root	38.0	59.0	1.5251178792333129	--
<i>Asiasarum heterotropoides</i>	Root	38.0	59.0	1.5251178792333129	--
<i>Asimina triloba</i>	Fruit	9.0	38.0	0.23161469458267334	--
<i>Asparagus officinalis</i>	Shoot	12.0	124.0	-0.49520977085345347	--
<i>Asparagus lucidus</i>	Root	7.0	8.0	-0.7085645930890114	--
<i>Asparagus officinalis</i>	Root	0.2	2.3	-0.9582114576426829	--
<i>Astragalus membranaceus</i>	Root	0.8	5.0	-0.8399576796962069	--
<i>Atractylodes ovata</i>	Rhizome	26.0	32.0	-0.3199754921774587	--
<i>Atractylodes lancea</i>	Rhizome		33.0	-0.3146567506186579	--
<i>Avena sativa</i>	Plant				--
<i>Averrhoa carambola</i>	Fruit	1.0	12.0	-0.5506181180861668	USDA's Ag Handbook 8 and sequelae)
<i>Barosma betulina</i>	Leaf		84.0	-0.01125863721237699	--
<i>Belamcanda chinensis</i>	Rhizome		17.0	-0.39975661555947134	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>Berberis vulgaris</i>	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Berberis vulgaris</i>	Bark				--
<i>Bertholletia excelsa</i>	Seed	41.0	53.0	0.22337262467547583	--
<i>Beta vulgaris</i>	Root	3.0	70.0	2.0068925301263634	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Blechnum orientale	Rhizome		17.0	-0.39975661555947134	--
Bletilla striata	Tuber		16.0	-0.6586794393978675	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	32.0	43.0	-0.09018412071860993	--
Borago officinalis	Plant				Abstract (See species file)
Brassica oleracea var. botrytis l.	Flower	3.0	97.0	3.0606347490514247	--
Brassica rapa	Root	2.0	23.0	-0.05159916005303352	--
Brassica oleracea var. sabellica l.	Leaf	4.0	28.0	-0.35493160662883855	--
Brassica napus var. napobrassica	Root	1.7	33.0	0.38637779530428495	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. gemmifera	Leaf	10.0	157.0	0.43674362649122483	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. italica	Leaf	4.0	118.0	0.19739995136190341	--
Brassica oleracea var. botrytis l.	Leaf	4.0	118.0	0.19739995136190341	--
Brassica rapa	Seed		15.0	-0.8554549124568511	--
Brassica oleracea var. viridis l.	Leaf	10.0	157.0	0.43674362649122483	--
Brassica juncea	Leaf	6.0	65.0	-0.12786196612153358	--
Brassica pekinensis	Leaf	66.5	80.0	-0.03580670645640996	--
Brassica nigra	Leaf	2.0	40.0	-0.28128739889673965	USDA's Ag Handbook 8 and sequelae)
Brassica oleracea var. capitata l.	Leaf	2.0	41.0	-0.2751503815857314	--
Broussonetia papyrifera	Fruit		23.0	-0.21967346657242662	--
Bupleurum chinense	Root				--
Cajanus cajan	Seed	25.0	34.0	-0.31604114389068755	--
Camellia sinensis	Leaf		30.0	-0.34265757200682206	--
Canavalia ensiformis	Seed		20.0	-0.7135039207289134	--
Capsicum annuum	Fruit	2.0	7.7	-0.6799873909506287	--
Capsicum frutescens	Fruit	3.0	24.0	-0.1895875891620866	USDA's Ag Handbook 8 and sequelae)
Carica papaya	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Carthamus tinctorius</i>	Flower				--
<i>Carum carvi</i>	Seed	47.0	66.0	0.592445203168114	--
<i>Carum carvi</i>	Fruit	47.0	61.0	0.9235898750204936	--
<i>Carya illinoensis</i>	Seed		56.0	0.30854321971223847	--
<i>Carya glabra</i>	Shoot	4.0	1100.0	2.317153616071562	--
<i>Carya ovata</i>	Shoot	7.0	342.0	0.1329615594228307	--
<i>Carya ovata</i>	Seed		46.0	0.024641236256363018	--
<i>Cassia tora</i>	Seed		31.0	-0.40121173892745016	--
<i>Castanea sativa</i>	Seed	4.0	10.0	-0.9974059041847889	--
<i>Castanea mollissima</i>	Seed	8.0	17.0	-0.798674515765676	--
<i>Castanea dentata</i>	Seed	10.0	24.0	-0.5999431273465632	--
<i>Catalpa ovata</i>	Fruit		21.0	-0.27984522139310664	--
<i>Caulophyllum thalictroides</i>	Root				--
<i>Celosia cristata</i>	Flower		39.0	0.2510160873322747	--
<i>Centella asiatica</i>	Bark		3.4	-0.9069023286651865	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Centella asiatica</i>	Leaf	0.4	3.4	-0.5059022324796413	--
<i>Chaenomeles lagenaria</i>	Fruit		21.0	-0.27984522139310664	--
<i>Chamaemelum nobile</i>	Flower				--
<i>Chamissoa altissima</i>	Leaf	4.0	36.0	-0.3058354681407726	Tramil
<i>Chenopodium album</i>	Seed		24.0	-0.5999431273465632	--
<i>Chondrus crispus</i>	Plant		44.0	-0.08032119569128418	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Chrysanthemum parthenium</i>	Plant				--
<i>Chrysanthemum parthenium</i>	Leaf				--
<i>Cicer arietinum</i>	Seed	33.0	50.0	0.1382020296387132	USDA's Ag Handbook 8 and sequelae)
<i>Cichorium endivia</i>	Leaf	8.0	146.0	0.3692364360701342	--
<i>Cichorium intybus</i>	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cimicifuga dahurica	Rhizome		18.0	-0.3944378740006705	--
Cimicifuga racemosa	Root				--
Cinnamomum burmannii	Bark		10.0	-0.27207069859955574	--
Cinnamomum sieboldii	Root Bark		20.0	0.7181848464596076	--
Cinnamomum aromaticum	Bark	4.0	10.0	-0.27207069859955574	--
Cinnamomum verum	Leaf		34.0	-0.3181095027627891	--
Cinnamomum sieboldii	Bark		40.0	2.6135276198805846	--
Cinnamomum verum	Bark	11.4	20.0	0.6897954075604908	--
Cistanche salsa	Plant		13.0	-0.3860718715383825	--
Citrullus lanatus	Fruit		8.0	-0.6709616277275268	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Citrus paradisi	Fruit	0.0	22.0	-0.24975934398276664	--
Citrus medica	Fruit		14.0	-0.49044636326548674	--
Citrus sinensis	Fruit	0.9	13.0	-0.5205322406758267	--
Citrus aurantiifolia	Fruit	1.0	9.0	-0.6408757503171868	USDA's Ag Handbook 8 and sequelae)
Citrus aurantium	Fruit		16.0	-0.4302746084448067	--
Citrus reticulata	Fruit	0.8	8.0	-0.6709616277275268	ACTA AGRIC SCAND SUPPL 22: 1980
Cnicus benedictus	Plant				--
Cnidium officinale	Rhizome		16.0	-0.40507535711827214	--
Cocos nucifera	Seed	9.0	25.0	-0.5715529290009757	--
Coix lacryma-jobi	Seed		20.0	-0.7135039207289134	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Colocasia esculenta	Root	5.0	66.0	1.8317017479834359	--
Colocasia esculenta	Leaf		6.6	-0.486263777084415	--
Coptis spp	Rhizome	90.0	600.0	2.701069713221419	--
Coptis japonica	Rhizome	90.0	600.0	2.701069713221419	--
Coptis chinensis	Rhizome	90.0	600.0	2.701069713221419	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coriandrum sativum	Fruit	34.0	52.0	0.6528169783274335	--
Cornus officinalis	Fruit		12.0	-0.5506181180861668	--
Corylus avellana	Seed	20.0	39.0	-0.1740901521627498	--
Crataegus laevigata	Flower				--
Crataegus laevigata	Fruit				--
Crataegus rhipidophylla	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Crataegus cuneata	Fruit		14.0	-0.49044636326548674	--
Cucumis melo	Fruit	1.5	31.0	0.021013552710293256	--
Cucumis sativus	Fruit	2.0	157.0	3.8118341064131345	--
Cucurbita pepo	Seed	75.0	200.0	4.396731781476845	--
Cucurbita maxima	Leaf	7.6	54.0	-0.19536915654262424	--
Cucurbita spp	Fruit	2.0	41.0	0.3218723268136934	--
Cuminum cyminum	Seed	41.0	58.0	0.3653236164034136	--
Cuminum cyminum	Fruit	41.0	58.0	0.8333322427894736	--
Curcuma longa	Rhizome		22.0	-0.3731629077654671	--
Curcuma longa	Plant	0.5	1.5	-0.49949550935262865	--
Cymbopogon citratus	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Cynanchum atratum	Root		31.0	0.29878240423282126	--
Cynara cardunculus	Flower	4.0	36.0	0.1056909841399049	USDA's Ag Handbook 8 and sequelae)
Cyperus rotundus	Rhizome		33.0	-0.3146567506186579	--
Cypridium pubescens	Root		67.0	1.8754994435191676	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Cyrtosperma chamissonis	Root	10.0	50.0	1.1309386194117264	--
Daucus carota	Root	2.0	79.0	2.40107178994795	--
Dendrobium nobile	Stem		26.0	-1.342191817578709	--
Dioscorea alata	Root	2.0	17.0	-0.3143853332674246	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Dioscorea sp.	Root		56.0	1.3937247926261174	--
Dioscorea villosa	Root	1.3	5.6	-0.813679062374768	--
Dioscorea bulbifera	Rhizome		12.0	-0.4263503233534755	--
Diospyros virginiana	Leaf	5.0	25.0	-0.37334265856186327	--
Diospyros virginiana	Stem	9.0	162.0	0.6780864911725766	--
Drynaria fortunei	Rhizome		17.0	-0.39975661555947134	--
Echinacea purpurea	Root	1.3	5.1	-0.8355779101426338	--
Echinacea spp	Root		5.1	-0.8355779101426338	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Elaeagnus umbellatus	Fruit	3.0	20.0	-0.30993109880344666	--
Elettaria cardamomum	Fruit	23.0	28.0	-0.06924407952072656	--
Eleutherococcus senticosus	Root	0.9	4.2	-0.8749958361247925	--
Elytrigia repens	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Ephedra spp	Plant		8.0	-0.4353864966750113	--
Ephedra sinica	Plant	0.4	2.1	-0.49357775433623324	--
Equisetum arvense	Plant				--
Equisetum hyemale	Plant		10.0	-0.4156606466203598	--
Eriobotrya japonica	Leaf		28.0	-0.35493160662883855	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		21.0	-0.39789072780589624	--
Eriodictyon californicum	Leaf	0.4	1.7	-0.5163351619083554	--
Erythroxyllum novogranatense	Leaf	19.0	22.0	-0.391753710494888	--
Erythroxyllum novogranatense	Leaf	16.0	33.0	-0.32424652007379734	--
Erythroxyllum coca	Leaf	18.0	29.0	-0.3487945893178303	--
Eucommia ulmoides	Bark		14.0	0.11267574386446289	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		18.0	-0.37010285362412665	--
Eupatorium perfoliatum	Plant	0.2	2.0	-0.49456404683896577	--
Euphrasia officinalis	Plant	0.5	3.5	-0.47976965929797716	--
Fallopia japonica	Plant	42.0	49.0	-0.031006570554655437	Chem. & Pharm. Bull. 38: 2205.
Ficus carica	Fruit	1.0	7.0	-0.7010475051378668	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Firmiana simplex	Seed		25.0	-0.5715529290009757	--
Foeniculum vulgare	Fruit	7.1	33.0	0.08118530753097328	--
Foeniculum vulgare	Seed	0.1	0.7	-1.261434748798753	--
Forsythia suspensa	Fruit		17.0	-0.40018873103446667	--
Fragaria spp	Fruit	1.1	17.0	-0.40018873103446667	--
Frangula purshiana	Bark				--
Fraxinus rhynchophylla	Bark		17.0	0.40123557571247687	--
Fritillaria thunbergii	Bulb		12.0	-0.7939654612611702	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.
Fucus vesiculosus	Plant	0.1	0.6	-0.5083721418772219	--
Gardenia jasminoides	Fruit	10.0	17.0	-0.40018873103446667	--
Gastrodia elata	Rhizome		12.0	-0.4263503233534755	--
Genipa americana	Seed		16.0	-0.8270647141112636	--
Genipa americana	Fruit	3.0	14.0	-0.49044636326548674	--
Gentiana scabra	Root		18.0	-0.27058763773169275	--
Gentiana lutea	Root	0.6	2.9	-0.9319328403212439	--
Geranium thunbergii	Plant		28.0	-0.23812799612849617	--
Ginkgo biloba	Seed	3.0	8.0	-1.054186300875964	USDA's Ag Handbook 8 and sequelae)
Ginkgo biloba	Leaf	0.6	2.3	-0.5126529515217503	--
Glechoma hederacea	Plant	46.0	53.0	0.00844512955464756	Chem. & Pharm. Bull. 38: 2205.
Glehnia littoralis	Root		26.0	0.07979392655416202	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Glycine max	Seed	22.0	90.0	1.273809963462215	--
Glycyrrhiza uralensis	Root	11.0	13.0	-0.489576115410352	--
Glycyrrhiza glabra	Root	0.1	0.3	-1.0458068487141465	--
Gymnema sylvestre	Leaf				--
Harpagophytum procumbens	Root	0.3	1.8	-0.9801103054105488	--
Helianthus tuberosus	Tuber	16.0	64.0	1.8672816597577366	Bonness, M. S., Promising new drugs from plants: poisons that heal, Herbarist, #56, 1990, 59-68
Helianthus annuus	Seed	46.0	54.0	0.2517628230210634	--
Hibiscus sabdariffa	Flower				--
Hordeum vulgare	Sprout Seedling		20.0	-1.394755939064127	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	20.0	30.0	-0.42960193727303775	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hordeum vulgare	Stem		21.0	-1.4164667554004475	--
Houttuynia cordata	Plant		56.0	0.03803390463662481	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Humulus lupulus	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Humulus lupulus	Flower				--
Hydrangea arborescens	Root				--
Hydrastis canadensis	Root	0.4	1.6	-0.9888698445176951	--
Hyoscyamus niger	Seed		48.0	0.08142163294753811	--
Inula helenium	Plant				--
Inula helenium	Root	1.0	3.9	-0.888135144785512	--
Ipomoea batatas	Root	2.0	11.0	-0.5771715064818157	--
Ipomoea aquatica	Leaf	12.3	92.0	0.037837501275688946	--
Isatis tinctoria	Root		40.0	0.6929616640544078	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Juglans nigra	Fruit				--
Juglans nigra	Hull Husk				--
Juglans nigra	Pericarp				--
Juglans cinerea	Seed	26.0	37.0	-0.2308705488539249	--
Juglans nigra	Seed		46.0	0.024641236256363018	--
Juglans regia	Seed	25.0	30.0	-0.42960193727303775	USDA's Ag Handbook 8 and sequelae)
Juncus effusus	Pith		38.0	-1.0	--
Juniperus communis	Fruit				--
Juniperus virginiana	Shoot	7.0	317.0	0.060923562831513706	--
Jussiaea repens	Plant		40.0	-0.11977289580058717	--
Lablab purpureus	Seed	75.0	93.0	1.3589805584989778	--
Lactuca sativa	Leaf	2.7	974.0	5.450686769584958	--
Lagenaria siceraria	Fruit	7.0	157.0	3.8118341064131345	--
Larrea tridentata	Plant				--
Lens culinaris	Sprout Seedling	14.0	54.0	0.8998425413316947	USDA's Ag Handbook 8 and sequelae)
Lens culinaris	Seed	37.0	42.0	-0.08891955712598718	USDA's Ag Handbook 8 and sequelae)
Lepidium meyenii	Root		38.0	0.6053662729829442	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Ligustrum japonicum	Fruit		24.0	-0.1895875891620866	--
Ligustrum lucidum	Fruit		24.0	-0.1895875891620866	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	85.0	155.0	3.1191728559254055	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
Liquidambar styraciflua	Leaf	12.0	98.0	0.07465960514173857	--
Liquidambar styraciflua	Stem	4.0	240.0	1.8367755211916963	--
Lobelia inflata	Leaf	0.1	0.4	-0.524313284412666	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lonicera japonica	Flower		21.0	-0.6209345318219442	--
Lophatherum gracile	Plant		25.0	-0.26771677121047355	--
Lupinus albus	Seed	47.0	53.0	0.22337262467547583	--
Lycium chinense	Fruit		20.0	-0.30993109880344666	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		23.0	1.6415653633362461	--
Lycopersicon esculentum	Fruit	1.0	120.0	2.6986566422305542	--
Lycopodium clavatum	Plant		28.0	-0.23812799612849617	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		23.0		--
Macadamia spp	Seed	17.0	18.0	-0.7702843174200885	USDA's Ag Handbook 8 and sequelae)
Magnolia officinalis	Bark		9.0	-0.36825730921556044	--
Magnolia denudata	Flower		25.0	-0.4271677275654511	--
Magnolia kobus	Flower		25.0	-0.4271677275654511	--
Magnolia fargesii	Flower		25.0	-0.4271677275654511	--
Malus domestica	Fruit	0.0	35.0	0.1413570623516533	--
Mangifera indica	Fruit	0.4	11.4	-0.5686696445323708	--
Manihot esculenta	Root	4.0	19.0	-0.2267899421959609	--
Medicago sativa	Plant				--
Mentha pulegium	Plant		56.0	0.03803390463662481	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Mentha spicata	Leaf	11.0	75.0	-0.06649179301145117	USDA's Ag Handbook 8 and sequelae)
Mentha arvensis var. piperascens	Plant		28.0	-0.23812799612849617	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Mentha x piperita	Leaf				--
Morinda sp	Root		15.0	-0.4019807243388883	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Morus alba	Root Bark	9.0	14.0	-1.12857618729367	--
Murraya sp	Fruit	1.0	7.0	-0.7010475051378668	--
Musa x paradisiaca	Fruit	1.0	6.5	-0.7160904438430368	USDA's Ag Handbook 8 and sequelae)
Myrica cerifera	Bark				--
Myristica fragrans	Seed	13.0	20.0	-0.7135039207289134	--
Myristica fragrans	Aril		20.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Nardostachys chinensis	Rhizome		22.0	-0.3731629077654671	--
Nasturtium officinale	Plant				--
Nelumbo nucifera	Seed		28.0	-0.48638233396421304	--
Nepeta cataria	Plant				--
Notopterygium incisum	Rhizome		16.0	-0.40507535711827214	--
Nyssa sylvatica	Leaf	2.0	55.0	-0.189232139231616	--
Nyssa sylvatica	Stem	6.0	132.0	0.2324368642421459	--
Ocimum basilicum	Leaf	5.0	6.0	-0.48994598747101986	USDA's Ag Handbook 8 and sequelae)
Oenothera biennis	Seed	70.0	90.0	1.273809963462215	--
Ophiopogon japonicus	Tuber	7.0	16.0	-0.6586794393978675	--
Opuntia ficus-indica	Seed		15.0	-0.8554549124568511	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Origanum majorana	Plant	32.0	43.0	-0.09018412071860993	--
Origanum vulgare	Plant	39.0	49.0	-0.031006570554655437	USDA's Ag Handbook 8 and sequelae)
Paeonia suffruticosa	Root Bark	10.0	15.0	-0.8207826816681236	--
Paeonia moutan	Root Bark	10.0	15.0	-0.8207826816681236	--
Paeonia lactiflora	Root	15.0	24.0	-0.007801464517301675	--
Panax quinquefolius	Plant	10.0	114.0	0.6100835562215182	--
Panax ginseng	Petiole				--
Panax japonicus	Rhizome		20.0	-0.3838003908830688	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Panax ginseng	Fruit				--
Panax ginseng	Root				--
Panax ginseng	Stem				--
Panax ginseng	Leaf				--
Papaver somniferum	Seed	24.0	130.0	2.4094178972857168	--
Parthenium integrifolium	Root	0.6	3.7	-0.8968946838926584	--
Passiflora incarnata	Flower				--
Pastinaca sativa	Root	5.0	70.0	2.0068925301263634	--
Perilla frutescens	Plant		50.0	-0.021143645527329686	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
Persea americana	Fruit	4.0	16.0	-0.4302746084448067	--
Petasites japonicus	Plant	21.0	60.0	0.0774856047459278	Chem. & Pharm. Bull. 38: 2205.
Petroselinum crispum	Plant				--
Peucedanum decursivum	Plant	23.0	42.0	-0.10004704574593568	--
Phaseolus lunatus	Seed	7.0	100.0	1.5577119469180905	--
Phaseolus vulgaris	Seed	19.0	50.0	0.1382020296387132	--
Phaseolus coccineus	Seed		2.0	-1.2245274909494892	--
Phaseolus acutifolius	Seed	25.0	34.0	-0.31604114389068755	--
Phaseolus vulgaris	Fruit	2.0	150.0	3.6012329645407544	--
Phellodendron amurense	Bark		26.0	1.2669150712565191	--
Phoenix dactylifera	Seed	0.6	29.0	-0.4579921356186253	Abstract (See species file)
Phoenix dactylifera	Fruit	3.0	4.0	-0.7913051373688869	USDA's Ag Handbook 8 and sequelae)
Phyllanthus emblica	Fruit	18.0	89.0	1.7659944425100138	--
Physalis ixocarpa	Fruit	35.0	71.0	1.2244486491238937	--
Phytelephas aequatorialis	Flower	7.0	24.0	-0.4756094286295744	KOZIOL & PEDERSEN. 1993. PHYTELEPHAS AEQUATORIALIS(ARECACEAE) IN HUMAN AND ANIMAL NUTRITION. ECON. BOT. 47:401-307.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Phytelephas aequatorialis	Mesocarp	13.0	37.0		KOZIOL & PEDERSEN. 1993. PHYTELEPHAS AEQUATORIALIS(ARECACEAE) IN HUMAN AND ANIMAL NUTRITION. ECON. BOT. 47:401-307.
Pimenta dioica	Fruit	11.0	20.0	-0.30993109880344666	--
Pimpinella anisum	Fruit		59.0	0.8634181201998136	--
Pimpinella anisum	Seed		59.0	0.39371381474900113	--
Pinellia ternata	Tuber	14.0	18.0	-0.5534310602663841	--
Pinus pinea	Seed	42.0	46.0	0.024641236256363018	USDA's Ag Handbook 8 and sequelae)
Pinus echinata	Shoot	6.0	88.0	-0.59894448594495	--
Pinus edulis	Seed	40.0	50.0	0.1382020296387132	--
Piper nigrum	Fruit	11.2	35.7	0.16241717653889182	--
Pistacia vera	Seed	3.0	30.0	-0.42960193727303775	--
Pisum sativum	Seed	11.0	60.0	0.42210401309458867	--
Plantago asiatica	Plant		31.0	-0.20853922104651892	--
Plantago major	Seed	0.8	2.5	-1.2103323917766955	--
Plantago psyllium	Seed	0.5	2.1	-1.2216884711149305	--
Platycodon grandiflorum	Root	13.0	18.0	-0.27058763773169275	--
Polygala tenuifolia	Root		12.0	-0.5333738109460838	--
Polygonum multiflorum	Plant		24.5	-0.27264823372413644	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Polygonum multiflorum	Rhizome		8.0	-0.44762528958867887	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.
Polygonum multiflorum	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Polystichum polyblepharum	Plant	34.0	60.0	0.0774856047459278	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Portulaca oleracea	Shoot	3.0	60.0	-0.679627042127225	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Prunella vulgaris	Flower		25.0	-0.4271677275654511	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 serotina	Leaf	3.0	192.0	0.6515392323765133	--
Prunus persica	Bark				--
Prunus cerasus	Fruit	1.0	7.0	-0.7010475051378668	--
Prunus persica	Seed		31.0	-0.40121173892745016	--
Prunus dulcis	Seed	26.0	37.0	-0.2308705488539249	--
Prunus armeniaca	Seed	2.0	38.0	-0.20248035050833735	--
Prunus serotina	Stem	0.5	216.0	1.4802558196473519	--
Prunus persica	Fruit	0.45	37.5	0.21657175587750332	--
Prunus domestica	Fruit	0.66	131.0	3.029601293744294	--
Psidium guajava	Fruit	2.0	20.0	-0.30993109880344666	USDA's Ag Handbook 8 and sequelae)
Psophocarpus tetragonolobus	Seed	43.0	51.0	0.16659222798430076	--
Pueraria pseudohirsuta	Root	21.0	30.0	0.2549847086970894	--
Pulsatilla chinensis	Root		24.0	-0.007801464517301675	--
Pyrus communis	Fruit	0.15	26.6	-0.11136430789520253	--
Quercus phellos	Stem	2.0	92.0	-0.3617626383317617	--
Quercus stellata	Stem	4.0	52.0	-0.9559621409056692	--
Quercus alba	Stem	2.0	182.0	0.9751862424595303	--
Quercus rubra	Stem	4.0	138.0	0.32156678962823204	--
Quercus rubra	Seed		17.0	-0.798674515765676	--
Quercus velutina	Stem	5.0	93.0	-0.346907650767414	--
Quercus alba	Bark	0.6	2.4	-1.003088939281191	--
Quisqualis indica	Fruit		22.0	-0.24975934398276664	--



Plant	Part	Low PPM	High PPM	StdDev	Reference
Raphanus sativus	Root	2.0	72.0	2.094487921197827	--
Raphanus sativus	Seed		29.0	-0.4579921356186253	--
Rehmannia glutinosa	Root		14.0	-0.44577841987462014	--
Rheum rhabarbarum	Pt	1.0	46.0		--
Rheum palmatum	Rhizome	9.0	10.0	-0.4369878064710772	--
Rhizophora mangle	Leaf		43.0	-0.2628763469637149	--
Rhodymenia palmata	Plant		39.0	-0.12963582082791292	--
Rhus copallina	Stem	7.0	128.0	0.17301691398475513	--
Rhus copallina	Leaf	5.0	96.0	0.062385570519722086	--
Rhus glabra	Stem	3.0	208.0	1.3614159191325703	--
Ribes rubrum	Fruit	2.0	16.0	-0.4302746084448067	--
Ribes nigrum	Fruit	2.0	21.0	-0.27984522139310664	--
Ribes uva-crispa	Fruit	1.0	16.0	-0.4302746084448067	--
Rosa laevigata	Fruit		15.0	-0.4603604858551467	--
Rosa canina	Fruit				--
Rosmarinus officinalis	Leaf	9.0	38.0	-0.29356143351875613	USDA's Ag Handbook 8 and sequelae)
Rosmarinus officinalis	Plant	30.0	38.0	-0.13949874585523866	USDA's Ag Handbook 8 and sequelae)
Rubia cordifolia	Root		39.0	0.6491639685186761	--
Rubus chamaemorus	Fruit	5.3	40.0	0.29178644940335335	--
Rubus idaeus	Leaf				--
Rubus idaeus	Fruit	4.0	37.0	0.2015288171723333	Revised USDA data received 1993.
Rubus chingii	Fruit		28.0	-0.06924407952072656	--
Rumex acetosa	Leaf	2.0	20.0	-0.4040277451169045	--
Rumex crispus	Root				--
Ruscus aculeatus	Root	0.6	2.1	-0.9669709967498292	--
Ruscus aculeatus	Bark				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Salix alba	Bark	0.4	2.1	-1.0319449224659927	--
Salvia officinalis	Leaf	1.0	5.9	-0.4905596892021207	--
Salvia miltiorrhiza	Root		12.0	-0.5333738109460838	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.
Sambucus nigra	Fruit	3.0	17.0	-0.40018873103446667	--
Santalum acuminatum	Fruit	2.0	9.0	-0.6408757503171868	--
Sassafras albidum	Leaf	10.0	136.0	0.30786626296005176	--
Sassafras albidum	Stem	4.0	111.0	-0.07951787460915558	--
Schisandra chinensis	Fruit				--
Schizonepeta tenuifolia	Plant		28.0	-0.23812799612849617	--
Scrophularia buergeriana	Root		13.0	-0.489576115410352	--
Scutellaria lateriflora	Plant	1.2	8.6	-0.42946874165861587	--
Scutellaria baicalensis	Root	17.0	18.0	-0.27058763773169275	--
Secale cereale	Seed	35.0	45.0	-0.00374896208922453	USDA's Ag Handbook 8 and sequelae)
Sechium edule	Leaf	0.5	73.0	-0.07876582763346765	--
Senna alexandrina	Leaf	0.4	1.9	-0.5151077584461536	--
Senna occidentalis	Seed		41.0	-0.11730975547157471	--
Senna obtusifolia	Seed	10.0	76.0	0.8763471866239895	--
Serenoa repens	Fruit	0.7	5.2	-0.7552020844764787	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Sesamum indicum	Seed	24.0	102.0	1.6144923436092655	--
Siegesbeckia orientalis	Plant		17.0	-0.3466201714290795	--
Silybum marianum	Plant		3.3	-0.4817422443034423	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Silybum marianum	Leaf	0.7	3.3	-0.506515934210742	--
Simmondsia chinensis	Seed		16.0	-0.8270647141112636	--
Sinapis alba	Seed	27.0	61.0	0.4504942114401762	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sinomenium acutum	Rhizome		15.0	-0.410394098677073	--
Smilax officinalis	Root	0.5	2.6	-0.9450721489819633	--
Smilax spp	Root	0.5	2.6	-0.9450721489819633	--
Solanum tuberosum	Tuber	1.9	44.1	0.8200602873994755	--
Solanum melongena	Fruit	18.0	25.6	-0.14145018530554254	--
Sophora subprostrata	Root		14.0	-0.44577841987462014	--
Sophora angustifolia	Root	10.0	24.0	-0.007801464517301675	--
Sorbus aucubaria	Fruit	1.0	18.0	-0.37010285362412665	--
Spinacia oleracea	Plant	4.0	185.0	1.3103512331616465	--
Spirulina spp.	Plant		5.3	-0.4620163942487908	--
Spondias tuberosa	Fruit		1.33	-0.8716344300544947	--
Spondias dulcis	Fruit		1.9	-0.8544854799306009	--
Stachys officinalis	Plant	0.1	0.8	-0.5063995568717568	--
Stellaria media	Plant	0.4	5.2	-0.46300268675152334	--
Stevia rebaudiana	Plant		26.0	-0.2578538461831478	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Stevia rebaudiana	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Symphoricarpos orbiculatus	Stem	2.0	92.0	-0.3617626383317617	--
Symphytum officinale	Leaf				--
Symphytum officinale	Root		2.8	-0.9363126098748169	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Syzygium aromaticum	Fruit	10.0	30.0	-0.009072324700046541	--
Syzygium aromaticum	Flower	10.0	30.0	-0.18495922224483477	--
Tabebuia heptaphylla	Bark	0.1	0.7	-1.166606177328399	--
Tanacetum parthenium	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Taraxacum officinale	Leaf	21.0	230.0	0.8847458901948265	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Taraxacum officinale	Root	0.2	1.3	-1.0020091531784148	--
Taraxacum mongolicum	Plant		34.0	-0.17895044596454168	--
Tephrosia candida	Plant		26.0	-0.2578538461831478	--
Tetrapanax papyrifera	Pith		42.0	1.0	--
Thymus vulgaris	Plant	55.0	74.0	0.2155665551284883	USDA's Ag Handbook 8 and sequelae)
Thymus vulgaris	Leaf	0.3	1.5	-0.517562565370557	--
Trachyspermum ammi	Fruit		43.0	0.38204408163437337	--
Tragopogon porrifolius	Root		2.0	-0.9713507663034024	--
Trifolium pratense	Flower				--
Trigonella foenum-graecum	Seed				--
Triticum aestivum	Seed	12.0	19.0	-0.741894119074501	--
Turnera diffusa	Leaf	0.8	3.7	-0.5040611272863389	--
Tussilago farfara	Flower		25.0	-0.4271677275654511	--
Ulmus rubra	Bark				--
Urtica dioica	Leaf	0.9	4.7	-0.49792410997533065	--
Urtica dioica	Seed		19.0	-0.741894119074501	--
Urtica dioica	Root		19.0	-0.2267899421959609	--
Vaccinium macrocarpon	Fruit				--
Vaccinium vitis-idaea	Fruit	1.7	14.0	-0.49044636326548674	--
Vaccinium corymbosum	Fruit	1.0	7.0	-0.7010475051378668	--
Vaccinium myrtillus	Fruit	1.0	8.7	-0.6499015135402889	--
Valeriana officinalis	Root				--
Valerianella radicata	Plant	572.0	701.0	6.399620547261733	--
Valerianella locusta	Plant	62.0	64.5	0.12186876736889367	--
Verbascum thapsus	Leaf	0.2	0.4	-0.524313284412666	--
Viburnum opulus	Bark		17.0	0.40123557571247687	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vigna unguiculata	Seed	10.0	144.0	2.8068806741239425	--
Vigna radiata	Seed	26.0	31.0	-0.40121173892745016	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	35.0	38.0	-0.20248035050833735	USDA's Ag Handbook 8 and sequelae)
Vigna angularis	Seed	50.0	58.0	0.3653236164034136	--
Vigna radiata	Sprout Seedling	3.5	48.0	0.4949133977324324	USDA's Ag Handbook 8 and sequelae)
Vigna aconitifolia	Seed	19.0	21.0	-0.6851137223833258	--
Viscum album	Leaf		86.0	0.0010153974096394941	--
Vitis vinifera	Stem		75.0	-0.6142974269256724	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Vitis vinifera	Fruit	0.4	27.0	-0.09932995693106657	--
Xanthosoma sagittifolium	Root	5.0	19.0	-0.2267899421959609	--
Yucca baccata	Root	0.3	1.4	-0.9976293836248417	--
Zea mays	Seed	4.0	20.0	-0.7135039207289134	--
Zingiber officinale	Rhizome		57.0	-0.18700695320743768	--
Zingiber officinale	Root				--
Zizyphus jujuba	Fruit		21.0	-0.27984522139310664	--