

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for ZINC

Plant	Part	Low PPM	High PPM	StdDev	Reference
Valerianella radicata	Plant	572.0	701.0	6.399620547261733	--
Coptis chinensis	Rhizome	90.0	600.0	2.701069713221419	--
Coptis japonica	Rhizome	90.0	600.0	2.701069713221419	--
Coptis spp	Rhizome	90.0	600.0	2.701069713221419	--
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.
Lablab purpureus	Seed	75.0	93.0	1.3589805584989778	--
Cucurbita pepo	Seed	75.0	200.0	4.396731781476845	--
Oenothera biennis	Seed	70.0	90.0	1.273809963462215	--
Brassica pekinensis	Leaf	66.5	80.0	-0.03580670645640996	--
Valerianella locusta	Plant	62.0	64.5	0.12186876736889367	--
Thymus vulgaris	Plant	55.0	74.0	0.2155665551284883	USDA's Ag Handbook 8 and sequelae)
Alisma plantago-aquatica	Rhizome	54.0	68.0	-0.12850079606062845	--
Vigna angularis	Seed	50.0	58.0	0.3653236164034136	--
Artemisia vulgaris	Plant	50.0	90.0	0.3733733555657003	Chem. & Pharm. Bull. 38: 2205.
Anacardium occidentale	Seed	48.0	57.0	0.336933418057826	--
Carum carvi	Seed	47.0	66.0	0.592445203168114	--
Carum carvi	Fruit	47.0	61.0	0.9235898750204936	--
Lupinus albus	Seed	47.0	53.0	0.22337262467547583	--
Helianthus annuus	Seed	46.0	54.0	0.2517628230210634	--
Glechoma hederacea	Plant	46.0	53.0	0.00844512955464756	Chem. & Pharm. Bull. 38: 2205.
Psophocarpus tetragonolobus	Seed	43.0	51.0	0.16659222798430076	--
Anethum graveolens	Fruit	43.0	66.0	1.0740192620721936	--
Anethum graveolens	Seed	43.0	66.0	0.592445203168114	USDA's Ag Handbook 8 and sequelae)
Pinus pinea	Seed	42.0	46.0	0.024641236256363018	USDA's Ag Handbook 8 and sequelae)
Fallopia japonica	Plant	42.0	49.0	-0.031006570554655437	Chem. & Pharm. Bull. 38: 2205.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Bertholletia excelsa	Seed	41.0	53.0	0.22337262467547583	--
Cuminum cyminum	Fruit	41.0	58.0	0.8333322427894736	--
Cuminum cyminum	Seed	41.0	58.0	0.3653236164034136	--
Pinus edulis	Seed	40.0	50.0	0.1382020296387132	--
Origanum vulgare	Plant	39.0	49.0	-0.031006570554655437	USDA's Ag Handbook 8 and sequelae)
Asiasarum heterotropoides	Root	38.0	59.0	1.5251178792333129	--
Asiasarum sieboldii	Root	38.0	59.0	1.5251178792333129	--
Lens culinaris	Seed	37.0	42.0	-0.08891955712598718	USDA's Ag Handbook 8 and sequelae)
Physalis ixocarpa	Fruit	35.0	71.0	1.2244486491238937	--
Secale cereale	Seed	35.0	45.0	-0.00374896208922453	USDA's Ag Handbook 8 and sequelae)
Vigna unguiculata	Seed	35.0	38.0	-0.20248035050833735	USDA's Ag Handbook 8 and sequelae)
Polystichum polyblepharum	Plant	34.0	60.0	0.0774856047459278	--
Coriandrum sativum	Fruit	34.0	52.0	0.6528169783274335	--
Cicer arietinum	Seed	33.0	50.0	0.1382020296387132	USDA's Ag Handbook 8 and sequelae)
Origanum majorana	Plant	32.0	43.0	-0.09018412071860993	--
Boehmeria nivea	Plant	32.0	43.0	-0.09018412071860993	--
Arachis hypogaea	Seed	31.0	35.0	-0.2876509455451	--
Rosmarinus officinalis	Plant	30.0	38.0	-0.13949874585523866	USDA's Ag Handbook 8 and sequelae)
Sinapis alba	Seed	27.0	61.0	0.4504942114401762	--
Juglans cinerea	Seed	26.0	37.0	-0.2308705488539249	--
Atractylodes ovata	Rhizome	26.0	32.0	-0.3199754921774587	--
Vigna radiata	Seed	26.0	31.0	-0.40121173892745016	USDA's Ag Handbook 8 and sequelae)
Prunus dulcis	Seed	26.0	37.0	-0.2308705488539249	--
Phaseolus acutifolius	Seed	25.0	34.0	-0.31604114389068755	--
Cajanus cajan	Seed	25.0	34.0	-0.31604114389068755	--
Juglans regia	Seed	25.0	30.0	-0.42960193727303775	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sesamum indicum	Seed	24.0	102.0	1.6144923436092655	--
Papaver somniferum	Seed	24.0	130.0	2.4094178972857168	--
Peucedanum decursivum	Plant	23.0	42.0	-0.10004704574593568	--
Elettaria cardamomum	Fruit	23.0	28.0	-0.06924407952072656	--
Glycine max	Seed	22.0	90.0	1.273809963462215	--
Pueraria pseudohirsuta	Root	21.0	30.0	0.2549847086970894	--
Taraxacum officinale	Leaf	21.0	230.0	0.8847458901948265	--
Petasites japonicus	Plant	21.0	60.0	0.0774856047459278	Chem. & Pharm. Bull. 38: 2205.
Corylus avellana	Seed	20.0	39.0	-0.1740901521627498	--
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.
Erythroxyllum novogranatense	Leaf	19.0	22.0	-0.391753710494888	--
Vigna aconitifolia	Seed	19.0	21.0	-0.6851137223833258	--
Anemarrhena asphodeloides	Rhizome	19.0	27.0	-0.3465691999714629	--
Phaseolus vulgaris	Seed	19.0	50.0	0.1382020296387132	--
Erythroxyllum coca	Leaf	18.0	29.0	-0.3487945893178303	--
Solanum melongena	Fruit	18.0	25.6	-0.14145018530554254	--
Phyllanthus emblica	Fruit	18.0	89.0	1.7659944425100138	--
Scutellaria baicalensis	Root	17.0	18.0	-0.27058763773169275	--
Macadamia spp	Seed	17.0	18.0	-0.7702843174200885	USDA's Ag Handbook 8 and sequelae)
Erythroxyllum novogranatense	Leaf	16.0	33.0	-0.32424652007379734	--
Achyranthes bidentata	Root	16.0	51.0	1.1747363149474581	--
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
Paeonia lactiflora	Root	15.0	24.0	-0.007801464517301675	--
Alocasia macrorrhiza	Root	15.0	51.0	1.1747363149474581	--
Pinellia ternata	Tuber	14.0	18.0	-0.5534310602663841	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Lens culinaris</i>	Sprout Seedling	14.0	54.0	0.8998425413316947	USDA's Ag Handbook 8 and sequelae)
<i>Phytelephas aequatorialis</i>	Mesocarp	13.0	37.0		KOZIOL & PEDERSEN. 1993. PHYTELEPHAS AEQUATORIALIS (ARECACEAE) IN HUMAN AND ANIMAL NUTRITION. ECON. BOT. 47:401-307.
<i>Myristica fragrans</i>	Seed	13.0	20.0	-0.7135039207289134	--
<i>Platycodon grandiflorum</i>	Root	13.0	18.0	-0.27058763773169275	--
<i>Abelmoschus manihot</i>	Leaf	12.5	108.0	0.136029778251821	--
<i>Ipomoea aquatica</i>	Leaf	12.3	92.0	0.037837501275688946	--
<i>Liquidambar styraciflua</i>	Leaf	12.0	98.0	0.07465960514173857	--
<i>Asparagus officinalis</i>	Shoot	12.0	124.0	-0.49520977085345347	--
<i>Triticum aestivum</i>	Seed	12.0	19.0	-0.741894119074501	--
<i>Cinnamomum verum</i>	Bark	11.4	20.0	0.6897954075604908	--
<i>Piper nigrum</i>	Fruit	11.2	35.7	0.16241717653889182	--
<i>Glycyrrhiza uralensis</i>	Root	11.0	13.0	-0.489576115410352	--
<i>Mentha spicata</i>	Leaf	11.0	75.0	-0.06649179301145117	USDA's Ag Handbook 8 and sequelae)
<i>Anethum graveolens</i>	Plant	11.0	150.0	0.9651488572052452	--
<i>Aloe vera</i>	Leaf	11.0	770.0	4.198735238139277	--
<i>Pisum sativum</i>	Seed	11.0	60.0	0.42210401309458867	--
<i>Pimenta dioica</i>	Fruit	11.0	20.0	-0.30993109880344666	--
<i>Brassica oleracea</i> var. <i>viridis</i> l.	Leaf	10.0	157.0	0.43674362649122483	--
<i>Panax quinquefolius</i>	Plant	10.0	114.0	0.6100835562215182	--
<i>Sophora angustifolia</i>	Root	10.0	24.0	-0.007801464517301675	--
<i>Cyrtosperma chamissonis</i>	Root	10.0	50.0	1.1309386194117264	--
<i>Artemisia herba-alba</i>	Plant	10.0	21.0	-0.30716847131977654	--
<i>Syzygium aromaticum</i>	Fruit	10.0	30.0	-0.009072324700046541	--
<i>Paeonia moutan</i>	Root Bark	10.0	15.0	-0.8207826816681236	--
<i>Castanea dentata</i>	Seed	10.0	24.0	-0.5999431273465632	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Amorphophallus campanulatus</i>	Root	10.0	50.0	1.1309386194117264	--
<i>Paeonia suffruticosa</i>	Root Bark	10.0	15.0	-0.8207826816681236	--
<i>Senna obtusifolia</i>	Seed	10.0	76.0	0.8763471866239895	--
<i>Syzygium aromaticum</i>	Flower	10.0	30.0	-0.18495922224483477	--
<i>Gardenia jasminoides</i>	Fruit	10.0	17.0	-0.40018873103446667	--
<i>Vigna unguiculata</i>	Seed	10.0	144.0	2.8068806741239425	--
<i>Brassica oleracea</i> var. <i>gemmifera</i>	Leaf	10.0	157.0	0.43674362649122483	USDA's Ag Handbook 8 and sequelae)
<i>Sassafras albidum</i>	Leaf	10.0	136.0	0.30786626296005176	--
<i>Cocos nucifera</i>	Seed	9.0	25.0	-0.5715529290009757	--
<i>Anthriscus cerefolium</i>	Leaf	9.0	10.0	-0.4653979182269869	--
<i>Diospyros virginiana</i>	Stem	9.0	162.0	0.6780864911725766	--
<i>Asimina triloba</i>	Fruit	9.0	38.0	0.23161469458267334	--
<i>Morus alba</i>	Root Bark	9.0	14.0	-1.12857618729367	--
<i>Amaranthus</i> sp.	Leaf	9.0	108.0	0.136029778251821	--
<i>Rosmarinus officinalis</i>	Leaf	9.0	38.0	-0.29356143351875613	USDA's Ag Handbook 8 and sequelae)
<i>Rheum palmatum</i>	Rhizome	9.0	10.0	-0.4369878064710772	--
<i>Castanea mollissima</i>	Seed	8.0	17.0	-0.798674515765676	--
<i>Cichorium endivia</i>	Leaf	8.0	146.0	0.3692364360701342	--
<i>Cucurbita maxima</i>	Leaf	7.6	54.0	-0.19536915654262424	--
<i>Foeniculum vulgare</i>	Fruit	7.1	33.0	0.08118530753097328	--
<i>Juniperus virginiana</i>	Shoot	7.0	317.0	0.060923562831513706	--
<i>Rhus copallina</i>	Stem	7.0	128.0	0.17301691398475513	--
<i>Carya ovata</i>	Shoot	7.0	342.0	0.1329615594228307	--
<i>Phytelephas aequatorialis</i>	Flower	7.0	24.0	-0.4756094286295744	KOZIOL & PEDERSEN. 1993. PHYTELEPHAS AEQUATORIALIS(ARECACEAE) IN HUMAN AND ANIMAL NUTRITION. ECON. BOT. 47:401-307.
<i>Ophiopogon japonicus</i>	Tuber	7.0	16.0	-0.6586794393978675	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Asparagus lucidus</i>	Root	7.0	8.0	-0.7085645930890114	--
<i>Phaseolus lunatus</i>	Seed	7.0	100.0	1.5577119469180905	--
<i>Albizia julibrissin</i>	Bark	7.0	8.0	-0.4644439198315651	--
<i>Lagenaria siceraria</i>	Fruit	7.0	157.0	3.8118341064131345	--
<i>Nyssa sylvatica</i>	Stem	6.0	132.0	0.2324368642421459	--
<i>Abelmoschus esculentus</i>	Fruit	6.0	60.0	0.8935039976101535	USDA's Ag Handbook 8 and sequelae)
<i>Brassica juncea</i>	Leaf	6.0	65.0	-0.12786196612153358	--
<i>Pinus echinata</i>	Shoot	6.0	88.0	-0.59894448594495	--
<i>Rubus chamaemorus</i>	Fruit	5.3	40.0	0.29178644940335335	--
<i>Xanthosoma sagittifolium</i>	Root	5.0	19.0	-0.2267899421959609	--
<i>Rhus copallina</i>	Leaf	5.0	96.0	0.062385570519722086	--
<i>Ocimum basilicum</i>	Leaf	5.0	6.0	-0.48994598747101986	USDA's Ag Handbook 8 and sequelae)
<i>Diospyros virginiana</i>	Leaf	5.0	25.0	-0.37334265856186327	--
<i>Colocasia esculenta</i>	Root	5.0	66.0	1.8317017479834359	--
<i>Pastinaca sativa</i>	Root	5.0	70.0	2.0068925301263634	--
<i>Quercus velutina</i>	Stem	5.0	93.0	-0.346907650767414	--
<i>Brassica oleracea</i> var. <i>italica</i>	Leaf	4.0	118.0	0.19739995136190341	--
<i>Cinnamomum aromaticum</i>	Bark	4.0	10.0	-0.27207069859955574	--
<i>Persea americana</i>	Fruit	4.0	16.0	-0.4302746084448067	--
<i>Artocarpus heterophyllus</i>	Fruit	4.0	16.0	-0.4302746084448067	--
<i>Chamissoa altissima</i>	Leaf	4.0	36.0	-0.3058354681407726	Tramil
<i>Brassica oleracea</i> var. <i>sabellica</i> l.	Leaf	4.0	28.0	-0.35493160662883855	--
<i>Zea mays</i>	Seed	4.0	20.0	-0.7135039207289134	--
<i>Manihot esculenta</i>	Root	4.0	19.0	-0.2267899421959609	--
<i>Sassafras albidum</i>	Stem	4.0	111.0	-0.07951787460915558	--
<i>Carya glabra</i>	Shoot	4.0	1100.0	2.317153616071562	--
<i>Quercus rubra</i>	Stem	4.0	138.0	0.32156678962823204	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. botrytis l.	Leaf	4.0	118.0	0.19739995136190341	--
Quercus stellata	Stem	4.0	52.0	-0.9559621409056692	--
Spinacia oleracea	Plant	4.0	185.0	1.3103512331616465	--
Cynara cardunculus	Flower	4.0	36.0	0.1056909841399049	USDA's Ag Handbook 8 and sequelae)
Liquidambar styraciflua	Stem	4.0	240.0	1.8367755211916963	--
Castanea sativa	Seed	4.0	10.0	-0.9974059041847889	--
Rubus idaeus	Fruit	4.0	37.0	0.2015288171723333	Revised USDA data received 1993.
Vigna radiata	Sprout Seedling	3.5	48.0	0.4949133977324324	USDA's Ag Handbook 8 and sequelae)
Genipa americana	Fruit	3.0	14.0	-0.49044636326548674	--
Rhus glabra	Stem	3.0	208.0	1.3614159191325703	--
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.
Ginkgo biloba	Seed	3.0	8.0	-1.054186300875964	USDA's Ag Handbook 8 and sequelae)
Pistacia vera	Seed	3.0	30.0	-0.42960193727303775	--
Phoenix dactylifera	Fruit	3.0	4.0	-0.7913051373688869	USDA's Ag Handbook 8 and sequelae)
Capsicum frutescens	Fruit	3.0	24.0	-0.1895875891620866	USDA's Ag Handbook 8 and sequelae)
Prunus serotina	Leaf	3.0	192.0	0.6515392323765133	--
Elaeagnus umbellatus	Fruit	3.0	20.0	-0.30993109880344666	--
Brassica oleracea var. botrytis l.	Flower	3.0	97.0	3.0606347490514247	--
Annona cherimola	Fruit	3.0	15.0	-0.4603604858551467	--
Beta vulgaris	Root	3.0	70.0	2.0068925301263634	--
Sambucus nigra	Fruit	3.0	17.0	-0.40018873103446667	--
Apium graveolens	Root	2.8	70.0	2.0068925301263634	ACTA AGRIC SCAND SUPPL 22: 1980
Lactuca sativa	Leaf	2.7	974.0	5.450686769584958	--
Quercus alba	Stem	2.0	182.0	0.9751862424595303	--
Cucurbita spp	Fruit	2.0	41.0	0.3218723268136934	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica nigra	Leaf	2.0	40.0	-0.28128739889673965	USDA's Ag Handbook 8 and sequelae)
Prunus armeniaca	Seed	2.0	38.0	-0.20248035050833735	--
Ribes nigrum	Fruit	2.0	21.0	-0.27984522139310664	--
Quercus phellos	Stem	2.0	92.0	-0.3617626383317617	--
Nyssa sylvatica	Leaf	2.0	55.0	-0.189232139231616	--
Rumex acetosa	Leaf	2.0	20.0	-0.4040277451169045	--
Allium cepa	Bulb	2.0	53.0	1.4104984605249231	--
Brassica rapa	Root	2.0	23.0	-0.05159916005303352	--
Ribes rubrum	Fruit	2.0	16.0	-0.4302746084448067	--
Dioscorea alata	Root	2.0	17.0	-0.3143853332674246	--
Phaseolus vulgaris	Fruit	2.0	150.0	3.6012329645407544	--
Raphanus sativus	Root	2.0	72.0	2.094487921197827	--
Psidium guajava	Fruit	2.0	20.0	-0.30993109880344666	USDA's Ag Handbook 8 and sequelae)
Santalum acuminatum	Fruit	2.0	9.0	-0.6408757503171868	--
Ipomoea batatas	Root	2.0	11.0	-0.5771715064818157	--
Capsicum annuum	Fruit	2.0	7.7	-0.6799873909506287	--
Brassica oleracea var. capitata l.	Leaf	2.0	41.0	-0.2751503815857314	--
Daucus carota	Root	2.0	79.0	2.40107178994795	--
Symphoricarpos orbiculatus	Stem	2.0	92.0	-0.3617626383317617	--
Cucumis sativus	Fruit	2.0	157.0	3.8118341064131345	--
Solanum tuberosum	Tuber	1.9	44.1	0.8200602873994755	--
Vaccinium vitis-idaea	Fruit	1.7	14.0	-0.49044636326548674	--
Brassica napus var. napobrassica	Root	1.7	33.0	0.38637779530428495	USDA's Ag Handbook 8 and sequelae)
Cucumis melo	Fruit	1.5	31.0	0.021013552710293256	--
Echinacea purpurea	Root	1.3	5.1	-0.8355779101426338	--
Dioscorea villosa	Root	1.3	5.6	-0.813679062374768	--
Artocarpus altilis	Fruit	1.2	8.0	-0.6709616277275268	--



Plant	Part	Low PPM	High PPM	StdDev	Reference
Scutellaria lateriflora	Plant	1.2	8.6	-0.42946874165861587	--
Fragaria spp	Fruit	1.1	17.0	-0.40018873103446667	--
Sorbus aucubaria	Fruit	1.0	18.0	-0.37010285362412665	--
Vaccinium myrtillus	Fruit	1.0	8.7	-0.6499015135402889	--
Ficus carica	Fruit	1.0	7.0	-0.7010475051378668	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Musa x paradisiaca	Fruit	1.0	6.5	-0.7160904438430368	USDA's Ag Handbook 8 and sequelae)
Averrhoa carambola	Fruit	1.0	12.0	-0.5506181180861668	USDA's Ag Handbook 8 and sequelae)
Vaccinium corymbosum	Fruit	1.0	7.0	-0.7010475051378668	--
Salvia officinalis	Leaf	1.0	5.9	-0.4905596892021207	--
Rheum rhabarbarum	Pt	1.0	46.0		--
Lycopersicon esculentum	Fruit	1.0	120.0	2.6986566422305542	--
Murraya sp	Fruit	1.0	7.0	-0.7010475051378668	--
Prunus cerasus	Fruit	1.0	7.0	-0.7010475051378668	--
Ribes uva-crispa	Fruit	1.0	16.0	-0.4302746084448067	--
Apium graveolens	Leaf	1.0	44.0	-0.2567393296527067	USDA's Ag Handbook 8 and sequelae)
Citrus aurantiifolia	Fruit	1.0	9.0	-0.6408757503171868	USDA's Ag Handbook 8 and sequelae)
Inula helenium	Root	1.0	3.9	-0.888135144785512	--
Citrus sinensis	Fruit	0.9	13.0	-0.5205322406758267	--
Eleutherococcus senticosus	Root	0.9	4.2	-0.8749958361247925	--
Urtica dioica	Leaf	0.9	4.7	-0.49792410997533065	--
Astragalus membranaceus	Root	0.8	5.0	-0.8399576796962069	--
Turnera diffusa	Leaf	0.8	3.7	-0.5040611272863389	--
Plantago major	Seed	0.8	2.5	-1.2103323917766955	--
Citrus reticulata	Fruit	0.8	8.0	-0.6709616277275268	ACTA AGRIC SCAND SUPPL 22: 1980
Ananas comosus	Fruit	0.7	6.0	-0.7311333825482068	USDA's Ag Handbook 8 and sequelae)

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Serenoa repens</i>	Fruit	0.7	5.2	-0.7552020844764787	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Silybum marianum</i>	Leaf	0.7	3.3	-0.506515934210742	--
<i>Prunus domestica</i>	Fruit	0.66	131.0	3.029601293744294	--
<i>Quercus alba</i>	Bark	0.6	2.4	-1.003088939281191	--
<i>Parthenium integrifolium</i>	Root	0.6	3.7	-0.8968946838926584	--
<i>Phoenix dactylifera</i>	Seed	0.6	29.0	-0.4579921356186253	Abstract (See species file)
<i>Gentiana lutea</i>	Root	0.6	2.9	-0.9319328403212439	--
<i>Ginkgo biloba</i>	Leaf	0.6	2.3	-0.5126529515217503	--
<i>Ruscus aculeatus</i>	Root	0.6	2.1	-0.9669709967498292	--
<i>Smilax officinalis</i>	Root	0.5	2.6	-0.9450721489819633	--
<i>Sechium edule</i>	Leaf	0.5	73.0	-0.07876582763346765	--
<i>Plantago psyllium</i>	Seed	0.5	2.1	-1.2216884711149305	--
<i>Smilax</i> spp	Root	0.5	2.6	-0.9450721489819633	--
<i>Arctium lappa</i>	Root	0.5	2.2	-0.9625912271962561	--
<i>Prunus serotina</i>	Stem	0.5	216.0	1.4802558196473519	--
<i>Armoracia rusticana</i>	Root	0.5	2.9	-0.9319328403212439	--
<i>Curcuma longa</i>	Plant	0.5	1.5	-0.49949550935262865	--
<i>Euphrasia officinalis</i>	Plant	0.5	3.5	-0.47976965929797716	--
<i>Prunus persica</i>	Fruit	0.45	37.5	0.21657175587750332	--
<i>Mangifera indica</i>	Fruit	0.4	11.4	-0.5686696445323708	--
<i>Eriodictyon californicum</i>	Leaf	0.4	1.7	-0.5163351619083554	--
<i>Ephedra sinica</i>	Plant	0.4	2.1	-0.49357775433623324	--
<i>Senna alexandrina</i>	Leaf	0.4	1.9	-0.5151077584461536	--
<i>Salix alba</i>	Bark	0.4	2.1	-1.0319449224659927	--
<i>Stellaria media</i>	Plant	0.4	5.2	-0.46300268675152334	--
<i>Centella asiatica</i>	Leaf	0.4	3.4	-0.5059022324796413	--
<i>Vitis vinifera</i>	Fruit	0.4	27.0	-0.09932995693106657	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hydrastis canadensis	Root	0.4	1.6	-0.9888698445176951	--
Yucca baccata	Root	0.3	1.4	-0.9976293836248417	--
Thymus vulgaris	Leaf	0.3	1.5	-0.517562565370557	--
Apium graveolens	Fruit	0.3	1.2	-0.8755455941178387	--
Harpagophytum procumbens	Root	0.3	1.8	-0.9801103054105488	--
Asparagus officinalis	Root	0.2	2.3	-0.9582114576426829	--
Eupatorium perfoliatum	Plant	0.2	2.0	-0.49456404683896577	--
Taraxacum officinale	Root	0.2	1.3	-1.0020091531784148	--
Verbascum thapsus	Leaf	0.2	0.4	-0.524313284412666	--
Apium graveolens	Seed	0.2	89.0	1.2454197651166274	--
Pyrus communis	Fruit	0.15	26.6	-0.11136430789520253	--
Stachys officinalis	Plant	0.1	0.8	-0.5063995568717568	--
Fucus vesiculosus	Plant	0.1	0.6	-0.5083721418772219	--
Foeniculum vulgare	Seed	0.1	0.7	-1.261434748798753	--
Tabebuia heptaphylla	Bark	0.1	0.7	-1.166606177328399	--
Glycyrrhiza glabra	Root	0.1	0.3	-1.0458068487141465	--
Lobelia inflata	Leaf	0.1	0.4	-0.524313284412666	--
Citrus paradisi	Fruit	0.0	22.0	-0.24975934398276664	--
Malus domestica	Fruit	0.0	35.0	0.1413570623516533	--
Panax ginseng	Fruit				--
Panax ginseng	Petiole				--
Crataegus rhipidophylla	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Panax ginseng	Stem				--
Dendrobium nobile	Stem		26.0	-1.342191817578709	--
Panax ginseng	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eriobotrya japonica</i>	Leaf		28.0	-0.35493160662883855	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), <i>Kaohsiung J. Med. Sci.</i> , 4: 259-272.
<i>Taraxacum mongolicum</i>	Plant		34.0	-0.17895044596454168	--
<i>Humulus lupulus</i>	Fruit				Pedersen, M. 1987. <i>Nutritional Herbology</i> . Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Euodia rutaecarpa</i>	Fruit		18.0	-0.37010285362412665	--
<i>Juglans nigra</i>	Pericarp				--
<i>Allium sativum</i> var. <i>sativum</i>	Root				--
<i>Stevia rebaudiana</i>	Leaf				Pedersen, M. 1987. <i>Nutritional Herbology</i> . Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Quisqualis indica</i>	Fruit		22.0	-0.24975934398276664	--
<i>Chamaemelum nobile</i>	Flower				--
<i>Brassica rapa</i>	Seed		15.0	-0.8554549124568511	--
<i>Eriocaulon</i> sp	Leaf		21.0	-0.39789072780589624	--
<i>Nelumbo nucifera</i>	Seed		28.0	-0.48638233396421304	--
<i>Carthamus tinctorius</i>	Flower				--
<i>Elytrigia repens</i>	Plant				Pedersen, M. 1987. <i>Nutritional Herbology</i> . Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Rubus idaeus</i>	Leaf				--
<i>Amphicarpaea bracteata</i>	Shoot		40.0	-0.7372574394002785	--
<i>Lonicera japonica</i>	Flower		21.0	-0.6209345318219442	--
<i>Nardostachys chinensis</i>	Rhizome		22.0	-0.3731629077654671	--
<i>Tephrosia candida</i>	Plant		26.0	-0.2578538461831478	--
<i>Fritillaria thunbergii</i>	Bulb		12.0	-0.7939654612611702	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), <i>Kaohsiung J. Med. Sci.</i> , 4: 259-272.
<i>Glehnia littoralis</i>	Root		26.0	0.07979392655416202	--
<i>Spirulina</i> spp.	Plant		5.3	-0.4620163942487908	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Allium ampeloprasum	Plant				--
Catalpa ovata	Fruit		21.0	-0.27984522139310664	--
Celosia cristata	Flower		39.0	0.2510160873322747	--
Jussiaea repens	Plant		40.0	-0.11977289580058717	--
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.
Cypripedium pubescens	Root		67.0	1.8754994435191676	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Polygonum multiflorum	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Lophatherum gracile	Plant		25.0	-0.26771677121047355	--
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	--
Artemisia capillaris	Plant		22.0	-0.2973055462924508	--
Carya ovata	Seed		46.0	0.024641236256363018	--
Zingiber officinale	Root				--
Symphytum officinale	Root		2.8	-0.9363126098748169	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Genipa americana	Seed		16.0	-0.8270647141112636	--
Hyoscyamus niger	Seed		48.0	0.08142163294753811	--
Spondias tuberosa	Fruit		1.33	-0.8716344300544947	--
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.
Mentha x piperita	Leaf				--
Forsythia suspensa	Fruit		17.0	-0.40018873103446667	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Agathosma betulina	Leaf		84.0	-0.01125863721237699	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Citrus medica	Fruit		14.0	-0.49044636326548674	--
Panax japonicus	Rhizome		20.0	-0.3838003908830688	--
Areca catechu	Seed		16.0	-0.8270647141112636	--
Berberis vulgaris	Bark				--
Artemisia cina	Plant				--
Myristica fragrans	Aril		20.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Angelica dahurica	Root		29.0	0.21118701316135757	--
Blechnum orientale	Rhizome		17.0	-0.39975661555947134	--
Trifolium pratense	Flower				--
Allium cepa	Seed		34.0	-0.31604114389068755	--
Allium sativum var. sativum	Bulb		15.3	-0.616532999263753	--
Achillea millefolium	Plant				--
Annona muricata	Fruit		4.0	-0.7913051373688869	--
Atractylodes lancea	Rhizome		33.0	-0.3146567506186579	--
Phaseolus coccineus	Seed		2.0	-1.2245274909494892	--
Angelica laxiflora	Root		15.0	-0.4019807243388883	--
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.
Nepeta cataria	Plant				--
Symphytum officinale	Leaf				--
Sinomenium acutum	Rhizome		15.0	-0.410394098677073	--
Camellia sinensis	Leaf		30.0	-0.34265757200682206	--
Carica papaya	Fruit				--
Mentha pulegium	Plant		56.0	0.03803390463662481	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Trachyspermum ammi	Fruit		43.0	0.38204408163437337	--
Isatis tinctoria	Root		40.0	0.6929616640544078	--
Lygodium japonicum	Pollen Or Spore		23.0		--
Rosa laevigata	Fruit		15.0	-0.4603604858551467	--
Cinnamomum burmannii	Bark		10.0	-0.27207069859955574	--
Cynanchum atratum	Root		31.0	0.29878240423282126	--
Echinacea spp	Root		5.1	-0.8355779101426338	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Firmiana simplex	Seed		25.0	-0.5715529290009757	--
Rehmannia glutinosa	Root		14.0	-0.44577841987462014	--
Scrophularia buergeriana	Root		13.0	-0.489576115410352	--
Cassia tora	Seed		31.0	-0.40121173892745016	--
Juglans nigra	Fruit				--
Amomum xanthioides	Seed		48.0	0.08142163294753811	--
Magnolia denudata	Flower		25.0	-0.4271677275654511	--
Pulsatilla chinensis	Root		24.0	-0.007801464517301675	--
Cnicus benedictus	Plant				--
Passiflora incarnata	Flower				--
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.
Cimicifuga dahurica	Rhizome		18.0	-0.3944378740006705	--
Arisaema consanguineum	Rhizome		14.0	-0.41571284023587385	--
Chrysanthemum parthenium	Plant				--
Althaea officinalis	Root				--
Avena sativa	Plant				--
Pimpinella anisum	Fruit		59.0	0.8634181201998136	--
Ephedra spp	Plant		8.0	-0.4353864966750113	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nasturtium officinale	Plant				--
Barosma betulina	Leaf		84.0	-0.01125863721237699	--
Rubia cordifolia	Root		39.0	0.6491639685186761	--
Cinnamomum verum	Leaf		34.0	-0.3181095027627891	--
Ligustrum japonicum	Fruit		24.0	-0.1895875891620866	--
Viburnum opulus	Bark		17.0	0.40123557571247687	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Magnolia fargesii	Flower		25.0	-0.4271677275654511	--
Cnidium officinale	Rhizome		16.0	-0.40507535711827214	--
Polygala tenuifolia	Root		12.0	-0.5333738109460838	--
Siegesbeckia orientalis	Plant		17.0	-0.3466201714290795	--
Tragopogon porrifolius	Root		2.0	-0.9713507663034024	--
Cichorium intybus	Root				--
Lepidium meyenii	Root		38.0	0.6053662729829442	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Citrus aurantium	Fruit		16.0	-0.4302746084448067	--
Broussonetia papyrifera	Fruit		23.0	-0.21967346657242662	--
Chaenomeles lagenaria	Fruit		21.0	-0.27984522139310664	--
Chenopodium album	Seed		24.0	-0.5999431273465632	--
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.
Aristolochia debilis	Fruit		40.0	0.29178644940335335	--
Prunus persica	Bark				--
Rhizophora mangle	Leaf		43.0	-0.2628763469637149	--
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.



Plant	Part	Low PPM	High PPM	StdDev	Reference
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 persica	Seed		31.0	-0.40121173892745016	--
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.
Gentiana scabra	Root		18.0	-0.27058763773169275	--
Petroselinum crispum	Plant				--
Angelica sinensis	Root				--
Juglans nigra	Hull Husk				--
Larrea tridentata	Plant				--
Cistanche salsa	Plant		13.0	-0.3860718715383825	--
Juglans nigra	Seed		46.0	0.024641236256363018	--
Vitis vinifera	Stem		75.0	-0.6142974269256724	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Zingiber officinale	Rhizome		57.0	-0.18700695320743768	--
Quercus rubra	Seed		17.0	-0.798674515765676	--
Frangula purshiana	Bark				--
Dioscorea bulbifera	Rhizome		12.0	-0.4263503233534755	--
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.
Cimicifuga racemosa	Root				--
Hibiscus sabdariffa	Flower				--
Vaccinium macrocarpon	Fruit				--
Aconitum carmichaelii	Tuber		13.0	-0.8165520080950929	--
Morinda sp	Root		15.0	-0.4019807243388883	--
Juniperus communis	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Magnolia kobus	Flower		25.0	-0.4271677275654511	--
Rubus chingii	Fruit		28.0	-0.06924407952072656	--
Rumex crispus	Root				--
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.
Cymbopogon citratus	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Crataegus cuneata	Fruit		14.0	-0.49044636326548674	--
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	Stem		21.0	-1.4164667554004475	--
Raphanus sativus	Seed		29.0	-0.4579921356186253	--
Chrysanthemum parthenium	Leaf				--
Belamcanda chinensis	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.
Tussilago farfara	Flower		25.0	-0.4271677275654511	--
Drynaria fortunei	Rhizome		17.0	-0.39975661555947134	--
Colocasia esculenta	Leaf		6.6	-0.486263777084415	--
Crataegus laevigata	Flower				--
Gymnema sylvestre	Leaf				--
Medicago sativa	Plant				--
Amorphophallus konjac	Root				--
Geranium thunbergii	Plant		28.0	-0.23812799612849617	--
Silybum marianum	Plant		3.3	-0.4817422443034423	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Sophora subprostrata	Root		14.0	-0.44577841987462014	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pimpinella anisum	Seed		59.0	0.39371381474900113	--
Equisetum arvense	Plant				--
Magnolia officinalis	Bark		9.0	-0.36825730921556044	--
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.
Aloe spp.	Leaf		1.1	-0.5200173722949603	--
Inula helenium	Plant				--
Acanthopanax gracilistylis	Root Bark		19.0	0.4103913408340613	--
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.
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.
Myrica cerifera	Bark				--
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.
Hydrangea arborescens	Root				--
Senna occidentalis	Seed		41.0	-0.11730975547157471	--
Phellodendron amurense	Bark		26.0	1.2669150712565191	--
Rosa canina	Fruit				--
Trigonella foenum-graecum	Seed				--
Bupleurum chinense	Root				--
Curcuma longa	Rhizome		22.0	-0.3731629077654671	--
Plantago asiatica	Plant		31.0	-0.20853922104651892	--
Equisetum hyemale	Plant		10.0	-0.4156606466203598	--
Ruscus aculeatus	Bark				Pedersen, M. 1987. Nutritional Herbiology. Pederson Publishing. Bountiful, Utah. 377 pp.
Valeriana officinalis	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Akebia quinata	Stem		10.0	-1.5798716186082722	--
Gastrodia elata	Rhizome		12.0	-0.4263503233534755	--
Urtica dioica	Root		19.0	-0.2267899421959609	--
Urtica dioica	Seed		19.0	-0.741894119074501	--
Humulus lupulus	Flower				--
Borago officinalis	Plant				Abstract (See species file)
Actaea racemosa	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Carya illinoensis	Seed		56.0	0.30854321971223847	--
Centella asiatica	Bark		3.4	-0.9069023286651865	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Opuntia ficus-indica	Seed		15.0	-0.8554549124568511	Laferriere, J.E., 1988, Nutricomp Program, Nutricomp Database; reviewed in J. Ethnobiology 9(1):27-29.
Tetrapanax papyrifera	Pith		42.0	1.0	--
Caulophyllum thalictroides	Root				--
Cornus officinalis	Fruit		12.0	-0.5506181180861668	--
Dioscorea sp.	Root		56.0	1.3937247926261174	--
Spondias dulcis	Fruit		1.9	-0.8544854799306009	--
Ulmus rubra	Bark				--
Rhodymenia palmata	Plant		39.0	-0.12963582082791292	--
Arctostaphylos uva-ursi	Leaf				--
Canavalia ensiformis	Seed		20.0	-0.7135039207289134	--
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.
Zizyphus jujuba	Fruit		21.0	-0.27984522139310664	--
Cyperus rotundus	Rhizome		33.0	-0.3146567506186579	--
Schisandra chinensis	Fruit				--
Simmondsia chinensis	Seed		16.0	-0.8270647141112636	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tanacetum parthenium	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Fraxinus rhynchophylla	Bark		17.0	0.40123557571247687	--
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.
Chondrus crispus	Plant		44.0	-0.08032119569128418	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Crataegus laevigata	Fruit				--
Juncus effusus	Pith		38.0	-1.0	--
Artemisia dracunculus	Plant				--
Schizonepeta tenuifolia	Plant		28.0	-0.23812799612849617	--
Berberis vulgaris	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Cinnamomum sieboldii	Bark		40.0	2.6135276198805846	--
Panax ginseng	Leaf				--
Cinnamomum sieboldii	Root Bark		20.0	0.7181848464596076	--
Notopterygium incisum	Rhizome		16.0	-0.40507535711827214	--
Viscum album	Leaf		86.0	0.0010153974096394941	--