

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for CITRIC-ACID

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus mitis	Fruit	28100.0	281000.0	3.9481881105480787	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Hibiscus sabdariffa	Fruit	37400.0	170000.0	2.131164153919124	--
Ananas comosus	Fruit	3200.0	86000.0	0.7561189975512667	--
Solanum sessiliflorum	Fruit	8000.0	80000.0	0.6579014863821341	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Euphorbia tirucalli	Plant		74000.0	1.9965372132576142	--
Citrus limon	Fruit		59500.0	0.3223249898875974	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hibiscus sabdariffa	Flower	6233.0	56667.0		--
Citrus mitis	Fruit Juice	36000.0	55200.0	1.0	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Solanum nigrum	Leaf		50000.0	1.9774150449411227	--
Passiflora edulis	Fruit	20000.0	45600.0	0.09478775567910673	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ribes nigrum	Fruit		35000.0	-0.07872984738636099	--
Schisandra chinensis	Fruit	5000.0	33333.0	-0.10601794590618502	--
Garcinia mangostana	Fruit	4200.0	27815.0	-0.19634531701139735	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Physalis peruviana	Fruit		22000.0	-0.29153445491948177	--
Citrus paradisi	Fruit	11900.0	21000.0	-0.3079040401143372	--
Ribes rubrum	Fruit		20200.0	-0.32099970827022156	--
Rosa canina	Fruit		15000.0	-0.4061215512834699	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Averrhoa carambola	Fruit		13200.0	-0.4355868046342097	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Glycine max	Seed	8000.0	13000.0	1.2210504417777566	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Punica granatum	Fruit Juice	8100.0	12300.0	-1.0	--
Citrus reticulata	Fruit	8600.0	12200.0	-0.4519563898290651	--
Zizyphus jujuba	Fruit	4000.0	12000.0	-0.4552303068680362	--
Physalis ixocarpa	Fruit	8010.0	11690.0	-0.4603048782784414	--
Citrus sinensis	Fruit	5600.0	9800.0	-0.4912433942967182	--
Ribes uva-crispa	Fruit		8800.0	-0.5076129794915737	--
Fagopyrum esculentum	Leaf		8200.0	-0.2128427556455255	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Fragaria spp	Fruit	3500.0	8000.0	-0.520708647647458	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Theobroma cacao	Seed	4500.0	7500.0	0.007355725552878182	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Sambucus nigra	Fruit	500.0	7340.0	-0.5315125738760625	--
Mammea americana	Fruit		6000.0	-0.5534478180371689	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Stevia rebaudiana	Plant		5350.0	-0.43536980750418874	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Portulaca oleracea	Plant		5100.0	-0.4442259874778297	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Opuntia ficus-indica	Fruit	475.0	4560.0	-0.5770200207177607	--
Ficus carica	Fruit	1000.0	4400.0	-0.5796391543489376	--
Panax quinquefolius	Plant		3000.0	-0.5186178992564134	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Spinacia oleracea	Leaf		2300.0	-0.5219939763024926	Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Solanum tuberosum	Tuber		2000.0		--
Helianthus annuus	Seed		1900.0	-1.228406167330634	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Citrus aurantiifolia	Fruit		800.0	-0.6385696610504172	--
Datura stramonium	Plant		750.0	-0.598323519019182	--
Lactuca sativa	Leaf		500.0	-0.6163112978588554	--
Opuntia ficus-indica	Leaf		310.0	-0.6262670151342493	--
Catalpa ovata	Fruit				--
Vanilla planifolia	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Annona muricata	Plant				--
Convallaria majalis	Plant				--
Rheum rhabarbarum	Pt				--
Euonymus atropurpureus	Plant				--
Capsicum frutescens	Fruit				--
Capsicum annuum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Brassica oleracea var. sabellica l.	Leaf				--
Vaccinium vitis-idaea	Fruit				--
Chelidonium majus	Plant				--
Sclerocarya caffra	Fruit				--
Citrus limon	Fruit Juice				Jim Duke's personal files.
Capparis spinosa	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Coffea arabica</i>	Seed				--
<i>Allium cepa</i>	Leaf				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
<i>Filipendula ulmaria</i>	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Prunus cerasus</i>	Fruit				--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Plant				--
<i>Malus domestica</i>	Plant				--
<i>Cichorium intybus</i>	Plant				--
<i>Leonurus cardiaca</i>	Plant				--
<i>Pyrus communis</i>	Fruit				--
<i>Polypodium vulgare</i>	Root				--
<i>Psidium guajava</i>	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Brassica oleracea</i> var. <i>capitata</i> l.	Leaf				Jim Duke's personal files.
<i>Medicago sativa</i>	Plant				--
<i>Hippophae rhamnoides</i>	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Rosa laevigata</i>	Fruit				--
<i>Equisetum arvense</i>	Plant				Jim Duke's personal files.
<i>Allium schoenoprasum</i>	Leaf				--
<i>Viburnum opulus</i>	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Juniperus communis</i>	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tamarindus indica	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vaccinium myrtillus	Fruit				--
Ginkgo biloba	Pollen Or Spore				Jim Duke's personal files.
Papaver somniferum	Latex Exudate				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ledum palustre	Plant				--
Capsella bursa-pastoris	Plant				--
Allium cepa	Bulb				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Kalanchoe pinnata	Leaf				--
Chaenomeles lagenaria	Fruit				--
Beta vulgaris	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Sophora pachycarpa	Plant				--
Brassica oleracea var. botrytis l.	Flower				--
Galium odoratum	Plant				--
Viburnum prunifolium	Root Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Apium graveolens	Root				--
Myrtus communis	Fruit				--
Foeniculum vulgare	Fruit				--
Rosa spp	Fruit				--
Rubus chingii	Fruit				--
Brassica oleracea	Stem				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Lycopersicon esculentum</i>	Fruit				--
<i>Vitis vinifera</i>	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Myrciaria dubia</i>	Fruit				Jim Duke's personal files.
<i>Lactuca scariola</i>	Latex Exudate				--
<i>Vitis vinifera</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Annona squamosa</i>	Plant				--
<i>Avena sativa</i>	Hull Husk				--
<i>Rosa canina</i>	Seed				--
<i>Lupinus albus</i>	Seed				--
<i>Brassica oleracea</i> var. <i>italica</i>	Plant				Jim Duke's personal files.
<i>Aconitum napellus</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Panax ginseng</i>	Root				--
<i>Juglans regia</i>	Fruit				--
<i>Lactuca virosa</i>	Plant				--
<i>Prunus armeniaca</i>	Fruit				--
<i>Rhododendron ferrugineum</i>	Leaf				--
<i>Schisandra chinensis</i>	Plant				--
<i>Adonis vernalis</i>	Plant				--
<i>Cocos nucifera</i>	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Vaccinium myrtillus</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Cryptostegia grandifolia</i>	Latex Exudate				--
<i>Brassica oleracea</i> var. <i>gemmifera</i>	Leaf				--
<i>Crataegus laevigata</i>	Fruit				Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Arctostaphylos uva-ursi</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Crataegus rhipidophylla</i>	Fruit				Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Anabasis aphylla</i>	Plant				--
<i>Urtica dioica</i>	Plant				--
<i>Vicia faba</i>	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Apium graveolens</i>	Pt				--
<i>Alocasia macrorrhiza</i>	Plant				--
<i>Pisum sativum</i>	Seed				--
<i>Prunus domestica</i>	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Avena sativa</i>	Petiole				--
<i>Rubus idaeus</i>	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<i>Mangifera indica</i>	Fruit				--
<i>Sorbus aucubaria</i>	Fruit				--
<i>Carica papaya</i>	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Musa x paradisiaca	Fruit				Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
Daucus carota	Root				--
Morus alba	Plant				--
Berberis vulgaris	Plant				--
Aesculus hippocastanum	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Eriobotrya japonica	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
Plantago major	Plant				--
Cephaelis ipecacuanha	Plant				--
Digitalis purpurea	Leaf				--
Ginkgo biloba	Seed				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
Foeniculum vulgare	Seed				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Prunus persica	Fruit				--
Quisqualis indica	Fruit				--
Vaccinium macrocarpon	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Piscidia piscipula	Plant				--
Citrus aurantium	Fruit				Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
Citrus aurantium	Plant				--



Plant	Part	Low PPM	High PPM	StdDev	Reference
Cucumis melo	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Nicotiana tabacum	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Petroselinum crispum	Root				--
Paris quadrifolia	Plant				--