

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Cocos nucifera*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ALANINE	Seed	1700.0	3205.0	-1.4776910288536462	USDA's Ag Handbook 8 and sequelae)
3	ALANINE	Leaf				Jim Duke's personal files.
3	ALANINE	Endosperm				Jim Duke's personal files.
10	ALPHA-AMYRIN	Seed Oil				Jim Duke's personal files.
23	ALPHA-TERPINEOL	Fruit				Jim Duke's personal files.
32	ALPHA-TOCOPHEROL	Oil		18.0	-0.6737505559360731	--
32	ALPHA-TOCOPHEROL	Seed Oil				Jim Duke's personal files.
32	ALPHA-TOCOPHEROL	Seed	7.0	13.0	-0.6896654823517182	--
5	ALUMINUM	Seed		7.2	-0.3516653417103102	--
5	ALUMINUM	Leaf				Jim Duke's personal files.
14	ARGININE	Leaf				Jim Duke's personal files.
14	ARGININE	Endosperm				Jim Duke's personal files.
14	ARGININE	Seed	5460.0	10300.0	-0.6072249141458423	USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Seed		0.02	-0.6237689826185465	Furr, A.K., et al. 1979
112	ASCORBIC-ACID	Seed	20.0	88.0	-0.2856259499860121	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	ASPARTIC-ACID	Leaf				Jim Duke's personal files.
3	ASPARTIC-ACID	Endosperm				Jim Duke's personal files.
3	ASPARTIC-ACID	Seed	3250.0	6130.0	-1.4611540528862226	USDA's Ag Handbook 8 and sequelae)
9	BETA-AMYRIN	Seed Oil				Jim Duke's personal files.
47	BETA-SITOSTEROL	Seed Oil				Jim Duke's personal files.
47	BETA-SITOSTEROL	Fruit		270.0	-0.43949317582642705	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
4	BORON	Seed	3.0	5.2	-0.8970628189505873	--
3	CADMIUM	Seed		0.03	-0.33359741952043553	Furr, A.K., et al. 1979
28	CALCIUM	Seed	71.0	476.0	-0.6741015491289437	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	CAMPESTEROL	Seed Oil				Jim Duke's personal files.
2	CAMPESTEROL	Fruit		30.0	-0.4046460894399287	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
3	CAPRIC-ACID	Seed	2628.0	69743.0	2.633904573975057	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CAPROIC-ACID	Seed	117.0	3600.0	-0.34501465200156417	--
1	CAPROIC-ACID	Endosperm				Jim Duke's personal files.
5	CAPRYLIC-ACID	Seed	3154.0	68305.0	1.9870944275459317	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CELLULOSE	Hull Husk		266000.0	-1.1355499479153377	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	CHLORINE	Seed		1007.0	1.3276510863378361	Furr, A.K., et al. 1979
24	CHROMIUM	Seed		0.2	-0.6533762381344975	Furr, A.K., et al. 1979
23	CITRIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COBALT	Seed		0.2	-0.19726970453812753	Furr, A.K., et al. 1979
12	COPPER	Seed	3.2	33.0	1.6495159701011972	--
7	CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
2	CYSTINE	Seed	660.0	1245.0	-1.3252475351434945	USDA's Ag Handbook 8 and sequelae)
3	DECANOIC-ACID	Seed	4100.0	50330.0	1.0	--
3	DECANOIC-ACID	Endosperm				Jim Duke's personal files.
1	DELTA-DECALACTONE	Endosperm				Jim Duke's personal files.
1	DELTA-DODECALACTONE	Endosperm				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
61	FERULIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	FIBER	Seed	30000.0	115000.0	-0.15617696206043077	--
8	FRUCTOSE	Root				Jim Duke's personal files.
8	FRUCTOSE	Juice		22200.0		Jim Duke's personal files.
8	FRUCTOSE	Resin, Exudate, Sap		2100.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	GABA	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	GAMMA-NONALACTONE	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	GAMMA-TOCOPHEROL	Oil				--
8	GENTISIC-ACID	Leaf				Jim Duke's personal files.
7	GLUCOSE	Root				Jim Duke's personal files.
7	GLUCOSE	Juice		19700.0		Jim Duke's personal files.
7	GLUCOSE	Resin, Exudate, Sap		2400.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	GLUTAMIC-ACID	Endosperm				Jim Duke's personal files.
8	GLUTAMIC-ACID	Seed	7610.0	14355.0	-1.154267228968401	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Leaf				Jim Duke's personal files.
12	GLYCINE	Seed	1580.0	2980.0	-1.1526395672471974	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Leaf				Jim Duke's personal files.
12	GLYCINE	Endosperm				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	GOLD	Plant				--
2	HEXANOIC-ACID	Seed	585.0	7190.0		--
7	HISTIDINE	Seed	770.0	1455.0	-1.2412650733514448	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Leaf				Jim Duke's personal files.
1	HYDROXYPROLINE	Endosperm				Jim Duke's personal files.
8	INOSITOL	Resin, Exudate, Sap		690.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	IODINE	Seed		0.3	-0.2504859725466935	Furr, A.K., et al. 1979
6	IRON	Seed	20.0	50.0	-0.4683156382183686	--
3	ISOLEUCINE	Seed	1310.0	2470.0	-1.0235626374582578	USDA's Ag Handbook 8 and sequelae)
3	ISOLEUCINE	Endosperm				Jim Duke's personal files.
4	LACTOSE	Root				Jim Duke's personal files.
7	LAURIC-ACID	Endosperm				Jim Duke's personal files.
7	LAURIC-ACID	Seed	25754.0	431400.0	3.356450956978854	--
2	LEUCINE	Leaf				Jim Duke's personal files.
2	LEUCINE	Seed	2470.0	4660.0	-1.1889665424024416	USDA's Ag Handbook 8 and sequelae)
13	LIGNIN	Hull Husk		294000.0	1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	LIGUSTRAZINE	Endosperm				Jim Duke's personal files.
60	LIMONENE	Fruit				Jim Duke's personal files.
27	LINOLEIC-ACID	Seed	584.0	18694.0	-0.7576615677270858	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	LYSINE	Endosperm				Jim Duke's personal files.
4	LYSINE	Seed	1470.0	2775.0	-1.2629328431370264	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Leaf				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
65	MAGNESIUM	Seed	300.0	770.0	-0.8597643812861001	Furr, A.K., et al. 1979
15	MALIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	MANGANESE	Seed	9.0	281.0	2.833645212569222	--
63	MENTHOL	Fruit				Jim Duke's personal files.
1	MERCURY	Seed		0.1	-0.12385851994600533	Furr, A.K., et al. 1979
15	METHIONINE	Seed	620.0	1170.0	-0.8120468095481715	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Leaf				Jim Duke's personal files.
15	METHIONINE	Endosperm				Jim Duke's personal files.
2	MOLYBDENUM	Seed		0.03	-0.8557155877274645	Furr, A.K., et al. 1979
13	MUFA	Seed	14250.0	26880.0	-0.5971507316122795	USDA's Ag Handbook 8 and sequelae)
6	MYRISTIC-ACID	Seed	7650.0	133015.0	1.4452781690520207	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	MYRISTIC-ACID	Seed Oil				Jim Duke's personal files.
3	N-HENTRIACONTANE	Seed Oil				Jim Duke's personal files.
2	N-HEXACOSANE	Seed Oil				Jim Duke's personal files.
1	N-NONACOSANE	Seed Oil				Jim Duke's personal files.
39	NIACIN	Seed	5.0	10.0	-0.9844146803254511	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	NICKEL	Seed		2.1	-0.5073146937660691	Furr, A.K., et al. 1979
5	OCTANOIC-ACID	Endosperm				Jim Duke's personal files.
5	OCTANOIC-ACID	Seed	4670.0	57520.0		--
18	OLEIC-ACID	Seed	2920.0	58958.0	-0.4944308344155307	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
25	P-COUMARIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	P-HYDROXY-BENZOIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	PALMITIC-ACID	Seed	4380.0	75495.0	0.858105760546874	--
24	PECTIN	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	PHENYLALANINE	Seed	1690.0	3190.0	-0.9971896280936104	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Leaf				Jim Duke's personal files.
4	PHOSPHORUS	Seed	830.0	2400.0	-0.7804502800829126	--
5	PHYLLOQUINONE	Oil		0.005	-1.0944932984058764	--
2	PHYTOSTEROLS	Seed	470.0	885.0	-0.40781205023024353	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Seed	2560.0	11491.0	-0.09489587073970547	--
4	PUFA	Seed	3660.0	26880.0	-0.601249593588963	USDA's Ag Handbook 8 and sequelae)
1	QUINIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	RAFFINOSE	Resin, Exudate, Sap		900.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	RAFFINOSE	Root				Jim Duke's personal files.
15	RIBOFLAVIN	Seed	0.2	0.7	-1.0823929498985099	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	SALICYLATES	Seed	2.0	3.0	-0.32408179774656004	--
60	SELENIUM	Seed		0.02	-0.2635767939811563	Furr, A.K., et al. 1979
1	SERINE	Seed	1720.0	3245.0	-1.4046655429596806	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	SERINE	Leaf				Jim Duke's personal files.
1	SERINE	Endosperm				Jim Duke's personal files.
14	SHIKIMIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	SILICON	Seed		370.0	-0.5747786449558462	Furr, A.K., et al. 1979
1	SODIUM	Seed	145.0	626.0	0.2780073375488779	--
11	SORBITOL	Endosperm				Jim Duke's personal files.
10	SQUALENE	Seed Oil				Jim Duke's personal files.
10	SQUALENE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	STEARIC-ACID	Seed	584.0	32710.0	0.14430588634246846	--
12	STIGMASTEROL	Seed Oil				Jim Duke's personal files.
7	SUCCINIC-ACID	Root				Jim Duke's personal files.
7	SUCCINIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	Resin, Exudate, Sap		134000.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	Juice		4300.0		Jim Duke's personal files.
14	SULFUR	Seed	440.0	1370.0	-0.6588697590248107	--
4	SYRINGALDEHYDE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	SYRINGIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	TANNIN	Plant				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	THIAMIN	Seed	0.3	1.0	-1.3322834288131225	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	THREONINE	Leaf				Jim Duke's personal files.
4	THREONINE	Seed	1210.0	2285.0	-1.3091612941527981	USDA's Ag Handbook 8 and sequelae)
4	TIN	Seed		1.5	-0.442152019568875	Furr, A.K., et al. 1979
2	TRIDECANOIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
29	TRYPTOPHAN	Seed	390.0	735.0	-0.8833088946354036	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Leaf				Jim Duke's personal files.
8	TYROSINE	Seed	1030.0	1945.0	-1.3427005948815731	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Leaf				Jim Duke's personal files.
3	VALINE	Endosperm				Jim Duke's personal files.
3	VALINE	Seed	2020.0	3810.0	-1.0100996922183336	USDA's Ag Handbook 8 and sequelae)
16	VANADIUM	Seed		0.004	-0.5871182787387549	Furr, A.K., et al. 1979
24	VANILLIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	VANILLIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	ZINC	Seed	9.0	25.0	-0.5715529290009757	--