

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Cocos nucifera*

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

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SULFUR	Seed	440.0	1370.0	-0.6588697590248107	--
14	SUCROSE	Juice		4300.0		Jim Duke's personal files.
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.
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.
12	STIGMASTEROL	Seed Oil				Jim Duke's personal files.
8	STEARIC-ACID	Seed	584.0	32710.0	0.14430588634246846	--
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.
11	SORBITOL	Endosperm				Jim Duke's personal files.
1	SODIUM	Seed	145.0	626.0	0.2780073375488779	--
4	SILICON	Seed		370.0	-0.5747786449558462	Furr, A.K., et al. 1979
14	SHIKIMIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	SERINE	Seed	1720.0	3245.0	-1.4046655429596806	USDA's Ag Handbook 8 and sequelae)
1	SERINE	Leaf				Jim Duke's personal files.
1	SERINE	Endosperm				Jim Duke's personal files.
60	SELENIUM	Seed		0.02	-0.2635767939811563	Furr, A.K., et al. 1979
7	SALICYLATES	Seed	2.0	3.0	-0.32408179774656004	--
15	RIBOFLAVIN	Seed	0.2	0.7	-1.0823929498985099	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
1	QUINIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PUFA	Seed	3660.0	26880.0	-0.601249593588963	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Seed	2560.0	11491.0	-0.09489587073970547	--
2	PHYTOSTEROLS	Seed	470.0	885.0	-0.40781205023024353	USDA's Ag Handbook 8 and sequelae)
5	PHYLLOQUINONE	Oil		0.005	-1.0944932984058764	--
4	PHOSPHORUS	Seed	830.0	2400.0	-0.7804502800829126	--
7	PHENYLALANINE	Leaf				Jim Duke's personal files.
7	PHENYLALANINE	Seed	1690.0	3190.0	-0.9971896280936104	USDA's Ag Handbook 8 and sequelae)
24	PECTIN	Seed				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	--
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.
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.
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.
5	OCTANOIC-ACID	Endosperm				Jim Duke's personal files.
5	OCTANOIC-ACID	Seed	4670.0	57520.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	NICKEL	Seed		2.1	-0.5073146937660691	Furr, A.K., et al. 1979
39	NIACIN	Seed	5.0	10.0	-0.9844146803254511	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	N-NONACOSANE	Seed Oil				Jim Duke's personal files.
2	N-HEXACOSANE	Seed Oil				Jim Duke's personal files.
3	N-HENTRIACONTANE	Seed Oil				Jim Duke's personal files.
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.
13	MUFA	Seed	14250.0	26880.0	-0.5971507316122795	USDA's Ag Handbook 8 and sequelae)
2	MOLYBDENUM	Seed		0.03	-0.8557155877274645	Furr, A.K., et al. 1979
15	METHIONINE	Endosperm				Jim Duke's personal files.
15	METHIONINE	Leaf				Jim Duke's personal files.
15	METHIONINE	Seed	620.0	1170.0	-0.8120468095481715	USDA's Ag Handbook 8 and sequelae)
1	MERCURY	Seed		0.1	-0.12385851994600533	Furr, A.K., et al. 1979
63	MENTHOL	Fruit				Jim Duke's personal files.
14	MANGANESE	Seed	9.0	281.0	2.833645212569222	--
15	MALIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
65	MAGNESIUM	Seed	300.0	770.0	-0.8597643812861001	Furr, A.K., et al. 1979
4	LYSINE	Seed	1470.0	2775.0	-1.2629328431370264	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Leaf				Jim Duke's personal files.
4	LYSINE	Endosperm				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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Fruit				Jim Duke's personal files.
3	LIGUSTRAZINE	Endosperm				Jim Duke's personal files.
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.
2	LEUCINE	Seed	2470.0	4660.0	-1.1889665424024416	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Leaf				Jim Duke's personal files.
7	LAURIC-ACID	Seed	25754.0	431400.0	3.356450956978854	--
7	LAURIC-ACID	Endosperm				Jim Duke's personal files.
4	LACTOSE	Root				Jim Duke's personal files.
3	ISOLEUCINE	Seed	1310.0	2470.0	-1.0235626374582578	USDA's Ag Handbook 8 and sequelae)
3	ISOLEUCINE	Endosperm				Jim Duke's personal files.
6	IRON	Seed	20.0	50.0	-0.4683156382183686	--
12	IODINE	Seed		0.3	-0.2504859725466935	Furr, A.K., et al. 1979
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.
1	HYDROXYPROLINE	Endosperm				Jim Duke's personal files.
7	HISTIDINE	Seed	770.0	1455.0	-1.2412650733514448	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Leaf				Jim Duke's personal files.
2	HEXANOIC-ACID	Seed	585.0	7190.0		--
3	GOLD	Plant				--
12	GLYCINE	Endosperm				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.
8	GLUTAMIC-ACID	Leaf				Jim Duke's personal files.
8	GLUTAMIC-ACID	Endosperm				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	GLUTAMIC-ACID	Seed	7610.0	14355.0	-1.154267228968401	USDA's Ag Handbook 8 and sequelae)
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	GENTISIC-ACID	Leaf				Jim Duke's personal files.
14	GAMMA-TOCOPHEROL	Oil				--
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.
22	GABA	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
15	FIBER	Seed	30000.0	115000.0	-0.15617696206043077	--
61	FERULIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DELTA-DODECALACTONE	Endosperm				Jim Duke's personal files.
1	DELTA-DECALACTONE	Endosperm				Jim Duke's personal files.
3	DECANOIC-ACID	Seed	4100.0	50330.0	1.0	--
3	DECANOIC-ACID	Endosperm				Jim Duke's personal files.
2	CYSTINE	Seed	660.0	1245.0	-1.3252475351434945	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
12	COPPER	Seed	3.2	33.0	1.6495159701011972	--
2	COBALT	Seed		0.2	-0.19726970453812753	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.
24	CHROMIUM	Seed		0.2	-0.6533762381344975	Furr, A.K., et al. 1979
7	CHLORINE	Seed		1007.0	1.3276510863378361	Furr, A.K., et al. 1979
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.
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	CAPROIC-ACID	Endosperm				Jim Duke's personal files.
1	CAPROIC-ACID	Seed	117.0	3600.0	-0.34501465200156417	--
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.
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.)
28	CALCIUM	Seed	71.0	476.0	-0.6741015491289437	--
3	CADMIUM	Seed		0.03	-0.33359741952043553	Furr, A.K., et al. 1979
4	BORON	Seed	3.0	5.2	-0.8970628189505873	--
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.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	BETA-AMYRIN	Seed Oil				Jim Duke's personal files.
3	ASPARTIC-ACID	Seed	3250.0	6130.0	-1.4611540528862226	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Leaf				Jim Duke's personal files.
3	ASPARTIC-ACID	Endosperm				Jim Duke's personal files.
112	ASCORBIC-ACID	Seed	20.0	88.0	-0.2856259499860121	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	ARSENIC	Seed		0.02	-0.6237689826185465	Furr, A.K., et al. 1979
14	ARGININE	Seed	5460.0	10300.0	-0.6072249141458423	USDA's Ag Handbook 8 and sequelae)
14	ARGININE	Leaf				Jim Duke's personal files.
14	ARGININE	Endosperm				Jim Duke's personal files.
5	ALUMINUM	Seed		7.2	-0.3516653417103102	--
5	ALUMINUM	Leaf				Jim Duke's personal files.
32	ALPHA-TOCOPHEROL	Seed	7.0	13.0	-0.6896654823517182	--
32	ALPHA-TOCOPHEROL	Oil		18.0	-0.6737505559360731	--
32	ALPHA-TOCOPHEROL	Seed Oil				Jim Duke's personal files.
23	ALPHA-TERPINEOL	Fruit				Jim Duke's personal files.
10	ALPHA-AMYRIN	Seed Oil				Jim Duke's personal files.
3	ALANINE	Leaf				Jim Duke's personal files.
3	ALANINE	Endosperm				Jim Duke's personal files.
3	ALANINE	Seed	1700.0	3205.0	-1.4776910288536462	USDA's Ag Handbook 8 and sequelae)