

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Phoenix dactylifera*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
15	FIBER	Seed	64000.0	300000.0	1.304614634419771	--
18	OLEIC-ACID	Seed	27000.0	51000.0	-0.55985026693048	--
15	FIBER	Fruit	22000.0	85000.0	-0.5348255773149249	--
13	PALMITIC-ACID	Seed	15000.0	25000.0	-0.18376993157030574	--
14	POTASSIUM	Fruit	6250.0	8780.0	-0.8083399078943273	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Seed	6000.0	10000.0	-0.8321526228533093	--
7	LAURIC-ACID	Seed	4800.0	54000.0	-0.028060776935393963	--
2	GALLO-TANNIN	Plant	4300.0	27800.0		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.
8	STEARIC-ACID	Seed	3000.0	10000.0	-0.3484239972825226	--
22	GABA	Fruit	2660.0	3370.0	1.407126578678398	--
22	GAMMA-AMINOBUTYRIC-ACID	Fruit	2660.0	3370.0	1.7044292848924936	Abstract (See species file)
6	MYRISTIC-ACID	Seed	2400.0	4000.0	-0.24363975823939635	--
2	ASPARAGINE	Fruit	2300.0	4500.0	2.264581694669994	Abstract (See species file)
5	GLUTAMINE	Fruit	650.0	870.0	1.1267392876723437	--
14	ARGININE	Fruit	620.0	2090.0	-0.5920936366686652	--
14	SULFUR	Fruit	510.0	590.0	-0.5738869470964798	--
29	TRYPTOPHAN	Fruit	500.0	645.0	-0.2883336982090432	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Fruit	400.0	6160.0	-0.5507946581831958	--
4	PHOSPHORUS	Fruit	370.0	8795.0	1.69456590371845	--
65	MAGNESIUM	Fruit	325.0	790.0	-0.6203759963079205	--
7	CHLORINE	Fruit	270.0	310.0	-0.4791512669647793	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

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35	TANNIN	Fruit	200.0	18000.0	-0.7380230311091176	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
28	CALCIUM	Fruit	140.0	2000.0	-0.4283573443119461	--
13	CYSTEINE	Fruit	110.0	1140.0	1.0	Abstract (See species file)
3	ALANINE	Fruit	80.0	1290.0	-0.9501454757917915	--
1	SERINE	Fruit	60.0	1960.0	-0.5941860880545526	--
12	GLYCINE	Fruit	40.0	3010.0	-0.2300074341376021	--
4	LYSINE	Fruit	30.0	2450.0	-0.4310869639742895	--
14	POTASSIUM	Seed	28.0	2440.0	-0.8908725075191605	Abstract (See species file)
3	ISOLEUCINE	Fruit	20.0	4650.0	0.3040077606201815	--
3	ASPARTIC-ACID	Fruit	20.0	3150.0	-0.9207574415888534	--
28	CALCIUM	Seed	18.0	436.0	-0.6814478670478287	Abstract (See species file)
1	SODIUM	Seed	15.0	820.0	0.5859664537894901	Abstract (See species file)
8	TYROSINE	Fruit	10.0	1730.0	-0.2853897488258916	--
6	IRON	Fruit	10.0	151.0	0.07148811973975773	--
4	THREONINE	Fruit	10.0	980.0	-0.8470550566495191	--
7	HISTIDINE	Fruit	10.0	390.0	-0.9273080508754981	--
1	SODIUM	Fruit	10.0	380.0	-0.1479158132265294	--
39	NIACIN	Fruit	10.0	135.0	0.9932872798882364	--
11	PANTOTHENIC-ACID	Fruit	8.0	10.0	-0.5169531369709149	USDA's Ag Handbook 8 and sequelae)
26	SEROTONIN	Fruit	8.0	9.0	-1.3897978667604325	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	PHENYLALANINE	Fruit	8.0	740.0	-0.8967709656324975	--
2	CYSTINE	Fruit	7.0	580.0	-0.4707560662338592	--
3	VALINE	Fruit	5.0	2710.0	-0.3596290253078901	--
6	IRON	Seed	5.0	17.0	-0.6216437483021793	Abstract (See species file)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	METHIONINE	Fruit	5.0	2190.0	1.5164823455152185	--
2	LEUCINE	Fruit	5.0	1140.0	-0.8420937960569738	--
14	MANGANESE	Fruit	3.0	45.0	-0.10681336019281051	--
7	SALICYLATES	Fruit	3.0	45.0	-0.20770615344752882	--
5	ALUMINUM	Seed	3.0	13.0	-0.34201085436666395	Abstract (See species file)
77	ZINC	Fruit	3.0	4.0	-0.7913051373688869	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Fruit	2.0	4.0	-0.6863742487163819	--
53	BETA-CAROTENE	Fruit	1.0	3.6	-0.14384189399264724	--
12	COPPER	Seed	0.6	2.0	-1.1623352892566066	Abstract (See species file)
77	ZINC	Seed	0.6	29.0	-0.4579921356186253	Abstract (See species file)
15	RIBOFLAVIN	Fruit	0.2	1.3	-0.7944081953947483	--
31	THIAMIN	Fruit	0.1	1.7	-0.4650060616434584	--
15	FOLACIN	Fruit	0.08	0.17	-0.7670170596960343	USDA's Ag Handbook 8 and sequelae)
8	ELLAGITANNIN	Plant	0.0	9900.0		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.
112	ASCORBIC-ACID	Fruit	0.0	750.0	-0.23785626092666567	--
3	CADMIUM	Seed	0.0	9.0	4.252910566397704	Abstract (See species file)
21	CHLOROPHYLL	Fruit	0.0	410.0	1.542593994049385	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
14	SUCROSE	Fruit	0.0	400000.0	2.089285952799339	--
87	RUTIN	Pollen Or Spore				Abstract (See species file)
5	ERGOSTEROL	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	LACTOSE	Seed				Abstract (See species file)

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5	CAPRYLIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	XYLOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	BEHENIC-ACID	Seed				Abstract (See species file)
12	STIGMASTEROL	Fruit				Abstract (See species file)
7	GLUCOSE	Fruit		357000.0	2.893929119951419	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.
2	MALTOSE	Seed				Abstract (See species file)
3	CAPRIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	VIOLAXANTHIN	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.
2	PALMITOLEIC-ACID	Seed				Abstract (See species file)
1	RAFFINOSE	Seed		3000.0	-0.7470721014785289	Abstract (See species file)
4	ISOCHLOROGENIC-ACID	Fruit				Abstract (See species file)
2	CAMPESTEROL	Stem				Abstract (See species file)
5	STARCH	Fruit		206000.0	-0.14195257090516208	Abstract (See species file)
4	P-HYDROXYBENZALDEHYDE	Stem				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.
1	GALACTOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

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176	QUERCETIN	Pollen Or Spore				Abstract (See species file)
5	PHYLLOQUINONE	Fruit		0.06	-0.22359887323159108	--
1	STACHYOSE	Seed		2200.0	-1.4073378200507318	Abstract (See species file)
13	P-HYDROXY-BENZOIC-ACID	Stem				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.
16	LYCOPENE	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.
57	COUMARIN	Leaf				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
2	LUPEOL-ACETATE	Stem				--
11	SORBITOL	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	OXALIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	FRUCTOSE	Seed		15300.0	1.4089399073526936	Abstract (See species file)
15	LUTEIN	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.
12	IODINE	Fruit		0.06	-0.2904150459573493	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	FRUCTOSE	Fruit		308000.0	4.088589817170726	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.

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101	APIGENIN	Stem				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.
30	POLYPHENOLS	Fruit		30000.0	1.146789651247877	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
21	LUPEOL	Stem				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.
8	ESTRONE	Pollen Or Spore				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
4	BORON	Fruit		7.0	-0.6629690111653129	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).
2	PIPECOLIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CHOLESTEROL	Fruit		0.0		USDA's Ag Handbook 8 and sequelae)
1	CHOLESTEROL	Pollen Or Spore				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
47	BETA-SITOSTEROL	Pollen Or Spore				Abstract (See species file)
4	SILICON	Fruit		660.0	1.5358789152594374	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

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5	ALUMINUM	Fruit		51.0	-0.20868440554018103	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	LEUCOANTHOCYANIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	5-O-CAFFEYOYLSHIKIMIC-ACID	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
4	PHOSPHORUS	Seed		1120.0	-1.1187018222711056	Abstract (See species file)
77	CHLOROGENIC-ACID	Fruit				Abstract (See species file)
9	BETA-AMYRIN	Pollen Or Spore				Abstract (See species file)
14	SUCROSE	Seed		38200.0	-0.15445921462296788	Abstract (See species file)
14	MANGANESE	Seed		16.0	-0.467393923690488	Abstract (See species file)
8	ESTRONE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	ACETALDEHYDE	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	GLUCOSE	Seed		16800.0	-0.14985111390158956	Abstract (See species file)
20	BENZOIC-ACID	Stem				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.