

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Phoenix dactylifera*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2,3,4-TRI-O-METHYLXYLOSE	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2,3-DI-O-METHYLXYLOSE	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-O-METHYLXYLOSE	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	3,5,4'-TRIHYDROXYSTILBENE	Stem				Abstract (See species file)
0	3,5-DIHYDROXY-4-METHOXY-BENZOIC-ACID	Stem				Abstract (See species file)
0	3,5-DIHYDROXY-4-METHOXYBENZALDEHYDE	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.
0	3-CAFFEYOYLSHIKIMIC-ACID	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.
0	4-HYDROXY-3-METHOXY-CINNAMIC-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.
0	4-HYDROXY-3-METHOXYBENZALDEHYDE	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.
0	5-ALPHA-STIGMAST-22-ENE-3,6-DIONE	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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	5-ALPHA-STIGMASTAN-3,6-DIONE	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	5-O-CAFFEYLSHIKIMIC-ACID	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	5-OXYPIPECOLIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	5ALPHA-CAMPESTERAN-3,6-DIONE	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.
0	6-BETA-HYDROXY-STIGMAST-4-EN-3-ONE	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.
0	6BETA-HYDROXYCAMPEST-4-ENE-3-ONE	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.
0	6BETA-HYDROXYSTIGMASTA-4,22-DIEN-3-ONE	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.
0	7BETA-GLUCOSYL-CHRYSOERIOL	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.
6	ACETALDEHYDE	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ALANINE	Fruit	80.0	1290.0	-0.9501454757917915	--
5	ALUMINUM	Seed	3.0	13.0	-0.34201085436666395	Abstract (See species file)
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.
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.
0	ARABINOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ARACHIDIC-ACID	Seed				Abstract (See species file)
14	ARGININE	Fruit	620.0	2090.0	-0.5920936366686652	--
112	ASCORBIC-ACID	Fruit	0.0	750.0	-0.23785626092666567	--
0	ASH	Seed	8900.0	18000.0	-0.8987230012448024	--
0	ASH	Fruit	5000.0	44800.0	-0.30721619226445124	--
2	ASPARAGINE	Fruit	2300.0	4500.0	2.264581694669994	Abstract (See species file)
3	ASPARTIC-ACID	Fruit	20.0	3150.0	-0.9207574415888534	--
0	BAIKIAIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	BEHENIC-ACID	Seed				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.
9	BETA-AMYRIN	Pollen Or Spore				Abstract (See species file)
53	BETA-CAROTENE	Fruit	1.0	3.6	-0.14384189399264724	--
47	BETA-SITOSTEROL	Pollen Or Spore				Abstract (See species file)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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).
0	BRASSICASTEROL	Seed				Abstract (See species file)
3	CADMIUM	Seed	0.0	9.0	4.252910566397704	Abstract (See species file)
28	CALCIUM	Fruit	140.0	2000.0	-0.4283573443119461	--
28	CALCIUM	Seed	18.0	436.0	-0.6814478670478287	Abstract (See species file)
0	CAMPEST-4-EN-3,6-DIONE	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.
0	CAMPEST-4-EN-3-ONE	Stem				Abstract (See species file)
0	CAMPESTAN-4-EN-3-ONE	Stem				Abstract (See species file)
2	CAMPESTEROL	Stem				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.
5	CAPRYLIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CARBOHYDRATES	Seed	655000.0	853000.0	1.3098878992465333	--
0	CARBOHYDRATES	Fruit	366100.0	948500.0	0.8856462811146213	USDA's Ag Handbook 8 and sequelae)
0	CHLORIDE	Seed		1610.0	1.413247926503847	Abstract (See species file)
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.
77	CHLOROGENIC-ACID	Fruit				Abstract (See species file)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
1	CHOLESTEROL	Fruit		0.0		USDA's Ag Handbook 8 and sequelae)
0	CIS-3,5,3',5'-TETRAHYDROXY-4-METHYLSTILBENE	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.
12	COPPER	Seed	0.6	2.0	-1.1623352892566066	Abstract (See species file)
12	COPPER	Fruit	2.0	4.0	-0.6863742487163819	--
57	COUMARIN	Leaf				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
13	CYSTEINE	Fruit	110.0	1140.0	1.0	Abstract (See species file)
2	CYSTINE	Fruit	7.0	580.0	-0.4707560662338592	--
0	D-MANNOSE	Seed				Abstract (See species file)
0	DACTYLIFRIC-ACID	Fruit				Abstract (See species file)
0	DEHYDRO-BETA-CAROTENE	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.
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.
5	ERGOSTEROL	Seed				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
0	ESTROGEN	Seed				Abstract (See species file)
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.
8	ESTRONE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	FAT	Seed	60000.0	100000.0	-0.8711556020733713	--
0	FAT	Fruit	1000.0	25000.0	-0.4503041007248309	--
15	FIBER	Seed	64000.0	300000.0	1.304614634419771	--
15	FIBER	Fruit	22000.0	85000.0	-0.5348255773149249	--
0	FLAVOXANTHIN	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.
15	FOLACIN	Fruit	0.08	0.17	-0.7670170596960343	USDA's Ag Handbook 8 and sequelae)
8	FRUCTOSE	Seed		15300.0	1.4089399073526936	Abstract (See species file)
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.
22	GABA	Fruit	2660.0	3370.0	1.407126578678398	--
1	GALACTOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	GALACTURONIC-ACID	Fruit				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
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.
22	GAMMA-AMINOBUTYRIC-ACID	Fruit	2660.0	3370.0	1.7044292848924936	Abstract (See species file)
7	GLUCOSE	Seed		16800.0	-0.14985111390158956	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.
8	GLUTAMIC-ACID	Fruit	400.0	6160.0	-0.5507946581831958	--
5	GLUTAMINE	Fruit	650.0	870.0	1.1267392876723437	--
12	GLYCINE	Fruit	40.0	3010.0	-0.2300074341376021	--
0	GLYCOSYLAPIGENIN	Leaf				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.
0	HENEICOSANOIC-ACID	Seed				Abstract (See species file)
7	HISTIDINE	Fruit	10.0	390.0	-0.9273080508754981	--
0	INVERTASE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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.
6	IRON	Seed	5.0	17.0	-0.6216437483021793	Abstract (See species file)
6	IRON	Fruit	10.0	151.0	0.07148811973975773	--
4	ISOCHLOROGENIC-ACID	Fruit				Abstract (See species file)
0	ISOFUCOSTEROL	Fruit				Abstract (See species file)
3	ISOLEUCINE	Fruit	20.0	4650.0	0.3040077606201815	--
0	KILOCALORIES	Fruit	1420.0	3550.0	-0.16790939262374893	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	LACTOSE	Seed				Abstract (See species file)
7	LAURIC-ACID	Seed	4800.0	54000.0	-0.028060776935393963	--
0	LEAD	Seed	0.1	4.0	0.4585092910843749	Abstract (See species file)
2	LEUCINE	Fruit	5.0	1140.0	-0.8420937960569738	--
1	LEUCOANTHOCYANIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
27	LINOLEIC-ACID	Seed	6000.0	10000.0	-0.8321526228533093	--
0	LINONELIC-ACID	Seed				Abstract (See species file)
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.
2	LUPEOL-ACETATE	Stem				--
0	LUPYL-ACETATE	Stem				--
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.
0	LUTEOLIN-7-GLYCOSIDE	Leaf				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.
0	LUTEOLIN-7-RUTINOSIDE	Leaf				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.
4	LYSINE	Fruit	30.0	2450.0	-0.4310869639742895	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
65	MAGNESIUM	Fruit	325.0	790.0	-0.6203759963079205	--
2	MALTOSE	Seed				Abstract (See species file)
14	MANGANESE	Seed		16.0	-0.467393923690488	Abstract (See species file)
14	MANGANESE	Fruit	3.0	45.0	-0.10681336019281051	--
0	MARGARIC-ACID	Seed				Abstract (See species file)
15	METHIONINE	Fruit	5.0	2190.0	1.5164823455152185	--
6	MYRISTIC-ACID	Seed	2400.0	4000.0	-0.24363975823939635	--
39	NIACIN	Fruit	10.0	135.0	0.9932872798882364	--
18	OLEIC-ACID	Seed	27000.0	51000.0	-0.55985026693048	--
9	OXALIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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.
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.
13	PALMITIC-ACID	Seed	15000.0	25000.0	-0.18376993157030574	--
2	PALMITOLEIC-ACID	Seed				Abstract (See species file)
11	PANTOTHENIC-ACID	Fruit	8.0	10.0	-0.5169531369709149	USDA's Ag Handbook 8 and sequelae)
0	PECTINS	Fruit	7200.0	39000.0	0.7313878222750974	--
0	PENTOSANS	Seed		43600.0	-0.7306943367909774	Abstract (See species file)
0	PENTOSANS	Fruit		38800.0	-0.45384631987127366	Abstract (See species file)
0	PEROXIDASE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	PHENYLALANINE	Fruit	8.0	740.0	-0.8967709656324975	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PHOSPHORUS	Seed		1120.0	-1.1187018222711056	Abstract (See species file)
4	PHOSPHORUS	Fruit	370.0	8795.0	1.69456590371845	--
5	PHYLLOQUINONE	Fruit		0.06	-0.22359887323159108	--
2	PIPECOLIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
14	POTASSIUM	Seed	28.0	2440.0	-0.8908725075191605	Abstract (See species file)
14	POTASSIUM	Fruit	6250.0	8780.0	-0.8083399078943273	USDA's Ag Handbook 8 and sequelae)
0	PROLINE	Fruit	120.0	1590.0	-0.6636420137419976	--
0	PROTEIN	Seed	18200.0	58000.0	-1.5637970615499415	--
0	PROTEIN	Fruit	9000.0	43000.0	-0.8914418450258965	--
176	QUERCETIN	Pollen Or Spore				Abstract (See species file)
1	RAFFINOSE	Seed		3000.0	-0.7470721014785289	Abstract (See species file)
0	RHAMNOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	RIBOFLAVIN	Fruit	0.2	1.3	-0.7944081953947483	--
0	RIBOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
87	RUTIN	Pollen Or Spore				Abstract (See species file)
7	SALICYLATES	Fruit	3.0	45.0	-0.20770615344752882	--
1	SERINE	Fruit	60.0	1960.0	-0.5941860880545526	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
1	SODIUM	Seed	15.0	820.0	0.5859664537894901	Abstract (See species file)
1	SODIUM	Fruit	10.0	380.0	-0.1479158132265294	--
11	SORBITOL	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	STACHYOSE	Seed		2200.0	-1.4073378200507318	Abstract (See species file)
5	STARCH	Fruit		206000.0	-0.14195257090516208	Abstract (See species file)
8	STEARIC-ACID	Seed	3000.0	10000.0	-0.3484239972825226	--
0	STIGMAST-4,22-DIENE-3,6-DIONE	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.
0	STIGMAST-4-ENE-3,6-DIONE	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.
0	STIGMAST-4-ENE-3-ONE	Stem				Abstract (See species file)
12	STIGMASTEROL	Fruit				Abstract (See species file)
14	SUCROSE	Seed		38200.0	-0.15445921462296788	Abstract (See species file)
14	SUCROSE	Fruit	0.0	400000.0	2.089285952799339	--
0	SUGARS	Fruit	380000.0	850000.0	2.6243722986131766	--
14	SULFUR	Fruit	510.0	590.0	-0.5738869470964798	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TANNINS	Plant	7500.0	44800.0	-1.3376143849489774	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.
31	THIAMIN	Fruit	0.1	1.7	-0.4650060616434584	--
4	THREONINE	Fruit	10.0	980.0	-0.8470550566495191	--
0	TRANS-3,5,3',5'-TETRAHYDROXY-4-METHYLSTILBENE	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.
0	TRICOSANOIC-ACID	Seed				Abstract (See species file)
29	TRYPTOPHAN	Fruit	500.0	645.0	-0.2883336982090432	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Fruit	10.0	1730.0	-0.2853897488258916	--
0	URONIC-ACID	Pollen Or Spore				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	VALINE	Fruit	5.0	2710.0	-0.3596290253078901	--
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.
0	VIT-B-6	Fruit	2.0	3.0	-0.8751338727185397	USDA's Ag Handbook 8 and sequelae)
0	WATER	Seed	71700.0	90000.0	-0.5280558401867593	--
0	WATER	Fruit	153000.0	785000.0	0.06271804760462396	--
0	WAX	Fruit				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.
77	ZINC	Seed	0.6	29.0	-0.4579921356186253	Abstract (See species file)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Fruit	3.0	4.0	-0.7913051373688869	USDA's Ag Handbook 8 and sequelae)