

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Moringa oleifera

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1-BETA-D-GLUCOSYL-2,6-DIMETHYL-BENZOATE	Root				--
0	2,4-METHYLENE-CHOLESTEROL	Seed				--
0	28-ISOAVENASTEROL	Seed				--
0	4-(ALPHA-L-RHAMNOSYLOXY)-BENZYLGLUCOCYANATE	Root		10000.0		--
0	4-(ALPHA-L-RHAMNOSYLOXY)-BENZYLGLUCOSINOLATE	Seed				--
0	4-(ALPHA-L-RHAMNOSYLOXY)-BENZYLISOTHIOCYANATE	Seed	80000.0	100000.0		--
0	4-HYDROXYMELLEIN	Stem				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
3	ALANINE	Shoot	5320.0	24930.0	1.0	USDA's Ag Handbook 8 and sequelae)
0	ALKALOIDS	Bark		1000.0	-0.8842751242621937	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ALKALOIDS	Root Bark		1000.0	-0.7738595760878411	--
32	ALPHA-TOCOPHEROL	Seed				--
0	ARACHIDIC-ACID	Seed	16600.0	39000.0	3.1623085140096574	--
14	ARGININE	Shoot	5320.0	24930.0	1.0	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Fruit		1200.0	-0.2098766141984456	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
112	ASCORBIC-ACID	Shoot	517.0	2425.0	-0.25371279504053523	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Leaf	2200.0	8800.0	0.37260776805039464	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Shoot	22600.0	105900.0	0.07700906195753883	USDA's Ag Handbook 8 and sequelae)
0	ASH	Seed	32000.0	33333.0	-0.43754270100269194	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Leaf	23000.0	92000.0	-0.4730938536967384	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Fruit	9700.0	82200.0	0.6612698014711165	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Shoot	9200.0	43110.0	0.6418932393390641	USDA's Ag Handbook 8 and sequelae)
0	BASSORIN	Stem				Tramil
0	BAYRENOL	Bark				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
1	BEHENIC-ACID	Seed	17200.0	43000.0	3.348182643310443	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BENZYL-AMINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	BENZYL-AMINE	Root Bark				--
20	BENZYL-ISOTHIOCYANATE	Root				--
53	BETA-CAROTENE	Shoot	45.0	215.0	0.25672153528088315	USDA's Ag Handbook 8 and sequelae)
53	BETA-CAROTENE	Seed		100.0	5.8216177591739955	--
53	BETA-CAROTENE	Leaf	18.0	72.0	-0.8243829994255151	--
47	BETA-SITOSTEROL	Stem				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
47	BETA-SITOSTEROL	Seed				--
0	BETA-SITOSTERONE	Stem				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	BRASSICASTEROL	Seed				--
102	CAFFEIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	CALCIUM	Leaf	4400.0	17600.0	-0.05720258224768924	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
28	CALCIUM	Fruit	300.0	2545.0	-0.30259294089165506	USDA's Ag Handbook 8 and sequelae)
0	CAMPESTANOL	Seed				--
2	CAMPESTEROL	Seed				--
0	CARBOHYDRATES	Shoot	82800.0	388000.0	-1.1642307623170411	USDA's Ag Handbook 8 and sequelae)
0	CARBOHYDRATES	Seed	199000.0	207290.0	-1.2562940905081785	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CARBOHYDRATES	Leaf	134000.0	536000.0	-0.6032032039619312	USDA's Ag Handbook 8 and sequelae)
0	CARBOHYDRATES	Fruit	85300.0	722880.0	-0.3208598062793106	USDA's Ag Handbook 8 and sequelae)
1	CHOLESTEROL	Seed				--
20	CHOLINE	Leaf		4230.0	-0.22919225965734855	--
20	CHOLINE	Fruit		4230.0	0.27421908226876107	--
0	CLEROSTEROL	Seed				--
12	COPPER	Leaf	1.0	4.0	-0.6510387463181428	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	CYSTINE	Shoot	1400.0	6560.0	1.0	USDA's Ag Handbook 8 and sequelae)
0	D-GALACTOSE	Resin, Exudate, Sap				Abstract (See species file)
0	D-GLUCURONIC-ACID	Resin, Exudate, Sap				Abstract (See species file)
0	D-MANNOSE	Resin, Exudate, Sap				Abstract (See species file)
0	D-XYLOSE	Resin, Exudate, Sap				Abstract (See species file)
1	DELTA-5-AVENASTEROL	Seed				--
0	DELTA-7,14-STIGMASTANOL	Seed				--
1	DELTA-7-AVENASTEROL	Seed				--
4	DELTA-TOCOPHEROL	Seed				--
0	EICOSANIC-ACID	Seed				--
0	EMULSIN	Stem				Tramil

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ERGOSTADIENOL	Seed				--
0	FAT	Fruit	2000.0	16950.0	-0.5117893532088643	USDA's Ag Handbook 8 and sequelae)
0	FAT	Shoot	14000.0	65600.0	0.36045988673155943	USDA's Ag Handbook 8 and sequelae)
0	FAT	Seed	200000.0	500000.0	1.235787477603246	--
0	FAT	Leaf	17000.0	68000.0	0.2299130779748209	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Shoot	15000.0	70290.0	-1.2000644927201543	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Seed	35000.0	36450.0	-0.7764211777551326	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	FIBER	Leaf	9000.0	36000.0	-1.5523832439995344	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Fruit	13000.0	110170.0	-0.2973093581717314	USDA's Ag Handbook 8 and sequelae)
0	FLUORINE	Leaf		4.0	-0.09229434366379953	=ICMR (Indian Council of Medical Research). 1976. Medicinal Plants of India. Vol. 1. Indian Council of Med. Res. Cambridge Printing Works, New Delhi. 487 pp; ICMR. 1987. Medicinal Plants of India. Vol. 2. Indian Council of Med. Res. Cambr. Printing Works, New Delhi. 600pp
0	GADOLEIC-ACID	Seed	4800.0	12700.0	1.1785496122154857	--
14	GAMMA-TOCOPHEROL	Seed				--
0	GLUCOSINOLATES	Seed		70000.0		--
0	GLUCOTROPAEOLIN	Root		500.0	-1.0	--
8	GLUTAMIC-ACID	Shoot	10350.0	48500.0	0.39220423591385656	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Shoot	5170.0	24225.0	1.0	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Shoot	1960.0	9185.0	1.0	USDA's Ag Handbook 8 and sequelae)
1	INDOLE-ACETIC-ACID	Fruit				--
0	INDOLEACETONITRILE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	IODINE	Leaf	0.05	0.7	-0.1409355592404101	--
6	IRON	Shoot	40.0	185.0	-0.4205794716292474	USDA's Ag Handbook 8 and sequelae)
6	IRON	Leaf	70.0	280.0	-0.21085163399012055	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	IRON	Fruit	3.0	30.0	-0.40848626836489793	USDA's Ag Handbook 8 and sequelae)
3	ISOLEUCINE	Shoot	4510.0	21135.0	1.2767041989957935	USDA's Ag Handbook 8 and sequelae)
75	KAEMPFEROL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Flower				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	KILOCALORIES	Shoot	640.0	3000.0	0.22432885857282978	USDA's Ag Handbook 8 and sequelae)
0	KILOCALORIES	Fruit	370.0	3135.0	-0.7982227106899622	USDA's Ag Handbook 8 and sequelae)
0	L-ARABINOSE	Resin, Exudate, Sap				Abstract (See species file)
0	L-RHAMNOSE	Resin, Exudate, Sap				Abstract (See species file)
2	LEUCINE	Shoot	7910.0	37065.0	1.5509660952798279	USDA's Ag Handbook 8 and sequelae)
1	LIGNOCERIC-ACID	Seed				--
4	LYSINE	Shoot	5370.0	25165.0	1.0391828214272667	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Shoot	1470.0	6890.0	-0.08383731719594234	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Fruit	450.0	3815.0	0.7803747555207075	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Shoot	1230.0	5765.0	1.0	USDA's Ag Handbook 8 and sequelae)
0	MORINGINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	MORINGINE	Root Bark				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	MORINGININE	Root Bark				--
6	MORINGININE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	MYRISTIC-ACID	Shoot				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	MYRISTIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MYROSIN	Stem				Tramil
39	NIACIN	Fruit	2.0	52.0	-0.1162786785242452	--
39	NIACIN	Shoot	8.0	105.0	-0.03554155028579542	USDA's Ag Handbook 8 and sequelae)
0	NIAZIMIN	Leaf				--
0	OCTACOSANOIC-ACID	Stem				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
18	OLEIC-ACID	Seed	120000.0	380000.0	2.1447229043962737	--
0	OXALATE	Leaf		32400.0	0.3002991678428363	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
9	OXALIC-ACID	Leaf		1010.0	-0.4465321906788087	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	OXALIC-ACID	Fruit		1010.0	-0.25065522800719753	--
13	PALMITIC-ACID	Seed	6000.0	60000.0	0.538393633616372	--
7	PHENYLALANINE	Shoot	4870.0	22820.0	1.0	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Leaf	700.0	2800.0	-0.39951935749949974	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Fruit	500.0	4235.0	0.309512468648855	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Shoot	1120.0	5250.0	0.8439806405575019	USDA's Ag Handbook 8 and sequelae)
2	PHYTOSTEROLS	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	POTASSIUM	Fruit	4610.0	39065.0	1.8710838289675698	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Shoot	3370.0	15790.0	-0.5662125913142811	USDA's Ag Handbook 8 and sequelae)
0	PROLAMINE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROLINE	Shoot	4510.0	21135.0	1.4258944352803073	USDA's Ag Handbook 8 and sequelae)
0	PROTEIN	Shoot	94000.0	440485.0	2.067455694533936	USDA's Ag Handbook 8 and sequelae)
0	PROTEIN	Seed	384000.0	400000.0	1.478470052739822	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PROTEIN	Leaf	67000.0	268000.0	0.5601998907619823	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PROTEIN	Fruit	21000.0	177965.0	0.9178226683592118	USDA's Ag Handbook 8 and sequelae)
4	PTERYGOSPERMIN	Root				--
176	QUERCETIN	Flower				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
176	QUERCETIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Shoot	6.0	30.0	1.1234399209254322	USDA's Ag Handbook 8 and sequelae)
15	RIBOFLAVIN	Fruit	0.7	6.3	0.27642502355036735	--
15	RIBOFLAVIN	Leaf	0.6	6.0	-0.1497366095229266	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
1	SERINE	Shoot	4140.0	19400.0	1.0	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Shoot	90.0	420.0	0.03209133983378128	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Fruit	420.0	3560.0	0.15364001538601127	USDA's Ag Handbook 8 and sequelae)
9	SPIROCHIN	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	STEARIC-ACID	Seed	6000.0	60000.0	0.7364062176558109	--
0	STIGMASTANOL	Seed				--
12	STIGMASTEROL	Seed				--
14	SULFUR	Leaf		1370.0	-0.8143977090530928	--
14	SULFUR	Fruit		1370.0	-0.031020916059269096	--
31	THIAMIN	Shoot	2.0	12.0	-0.11133380761319199	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Fruit	0.5	4.5	-0.10659124509620688	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Shoot	4110.0	19260.0	1.2868384427185613	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
93	TOCOPHEROL	Leaf	74.0	296.0	-0.42871944832620335	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	TOCOPHEROLS	Seed				--
0	TOCOPHEROLS	Leaf	74.0	296.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
29	TRYPTOPHAN	Shoot	1440.0	6745.0	1.41273485856346	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Shoot	3470.0	16260.0	1.0	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Shoot	6110.0	28630.0	1.4529988914891638	USDA's Ag Handbook 8 and sequelae)
28	VANILLIN	Stem				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	VIT-B-6	Shoot	12.0	56.0		USDA's Ag Handbook 8 and sequelae)
0	VIT-B-6	Fruit	1.0	10.0	0.30163780025644493	USDA's Ag Handbook 8 and sequelae)
0	WATER	Shoot		786600.0	-1.9587651690049068	USDA's Ag Handbook 8 and sequelae)
0	WATER	Seed		40000.0	-0.7199266968199146	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WATER	Leaf		750000.0	-0.28755334470838456	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WATER	Fruit		882000.0	0.4844831271590589	USDA's Ag Handbook 8 and sequelae)