

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Trigonella foenum-graecum*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
19	ACETYL-CHOLINE	Plant				--
3	ALANINE	Seed	8720.0	11220.0	0.22613763679768628	--
5	ALUMINUM	Seed	46.0	350.0	0.21894815163485395	--
101	APIGENIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
14	ARGININE	Seed	22230.0	27115.0	0.10478397151716012	--
14	ARGININE	Leaf				--
112	ASCORBIC-ACID	Seed	78.0	600.0	0.02175263838259632	--
112	ASCORBIC-ACID	Leaf		520.0	-0.3956707231337732	--
112	ASCORBIC-ACID	Shoot				--
3	ASPARTIC-ACID	Seed	23220.0	29790.0	0.6392747742176127	--
1	BEHENIC-ACID	Plant				--
1	BEHENIC-ACID	Seed Oil		26400.0	1.510973047897823	--
53	BETA-CAROTENE	Seed		0.2	-0.41680672721968065	--
53	BETA-CAROTENE	Leaf	23.0	278.0	0.07273598161233917	--
47	BETA-SITOSTEROL	Seed	800.0	1000.0	-0.24724332014320702	--
47	BETA-SITOSTEROL	Tissue Culture	8.7	400.0	-0.718471075749604	--
47	BETA-SITOSTEROL	Leaf				--
47	BETA-SITOSTEROL	Plant				--
4	BIOTIN	Sprout Seedling				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
28	CALCIUM	Seed	95.0	730.0	-0.6274524303440239	--
28	CALCIUM	Leaf		12900.0	-0.3783425155679842	--
2	CAMPESTEROL	Tissue Culture		10.0	0.9999999999999998	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	CAMPESTEROL	Seed		180.0	-0.2503358143318627	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
17	CARPAIN	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
7	CHLORINE	Seed		500.0	0.2870340914451406	--
7	CHLORINE	Leaf		1650.0	-0.43118238660979025	--
1	CHOLESTEROL	Seed				--
1	CHOLESTEROL	Tissue Culture		20.0		--
20	CHOLINE	Seed		500.0	-1.1034450678843846	--
20	CHOLINE	Leaf		13500.0	0.3414380440163458	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
24	CHROMIUM	Seed	0.1	0.4	-0.6242382631914585	--
2	COBALT	Seed	0.2	1.8	-0.12787540595439015	--
12	COPPER	Seed		11.0	-0.34599137524950224	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Leaf		3.0	-0.6785583269823768	--
57	COUMARIN	Seed				--
57	COUMARIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
2	CYSTINE	Seed	2430.0	4059.0	0.6324025092049402	--
6	DIOSCIN	Plant				--
6	DIOSCIN	Seed				--
7	DIOSGENIN	Plant		5000.0		--
7	DIOSGENIN	Tissue Culture		18.2	-0.7063019260498711	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	DIOSGENIN	Root		6200.0	0.7428746956965422	--
7	DIOSGENIN	Seed	900.0	19000.0	1.4142135623730951	--
7	DIOSGENIN	Pericarp				--
7	DIOSGENIN	Leaf				--
7	DIOSGENIN	Stem				--
7	DIOSGENIN	Sprout Seedling				--
3	ELEMENE	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
10	FENUGREEKINE	Plant	98.0	267.0		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
10	FENUGREEKINE	Seed				--
15	FIBER	Seed	10000.0	500000.0	2.8838487927767456	--
15	FOLACIN	Plant		1.0	-1.102281018951309	Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gokeikagaku Kaishi 61(9): 1119-1122.
23	FOLIC-ACID	Plant		1.0	-0.9356817836851675	Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gokeikagaku Kaishi 61(9): 1119-1122.
16	FORMONONETIN	Plant				--
8	FRUCTOSE	Plant				--
8	FRUCTOSE	Seed				--
22	GAMMA-AMINO BUTYRIC-ACID	Plant				--
81	GENISTEIN	Seed		10.0	-0.30362224719004427	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	GENTIANINE	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
1	GITOGENIN	Root				--
1	GITOGENIN	Plant				--
1	GITOGENIN	Tissue Culture		10.7		--
1	GITOGENIN	Seed	100.0	130.0		--
1	GITOGENIN	Pericarp				--
1	GITOGENIN	Leaf				--
1	GITOGENIN	Stem				--
8	GLUTAMIC-ACID	Seed	39880.0	43870.0	0.0909967435301507	--
12	GLYCINE	Seed	10630.0	14366.0	0.4935776829173641	--
7	HISTIDINE	Seed	4850.0	7350.0	0.32590737566576017	--
6	IRON	Seed	7.3	56.0	-0.4404378000213121	--
3	ISOLEUCINE	Seed	10710.0	13650.0	0.40302242203179	--
3	ISOLEUCINE	Leaf				--
4	ISOORIENTIN	Seed				--
22	ISOQUERCITRIN	Plant				--
4	ISOVITEXIN	Seed				--
75	KAEMPFEROL	Plant				--
75	KAEMPFEROL	Leaf				--
75	KAEMPFEROL	Flower				--
1	L-ARGININE	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
20	LECITHIN	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	LEUCINE	Leaf				--
2	LEUCINE	Seed	16160.0	19327.0	0.2149413681166838	--
13	LIGNIN	Plant		280000.0	0.9327752465712993	--
27	LINOLEIC-ACID	Seed Oil	68000.0	449000.0	0.2276468200186951	--
78	LUTEOLIN	Plant				--
78	LUTEOLIN	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
4	LYSINE	Leaf				--
4	LYSINE	Seed	15310.0	18525.0	0.8704886437054995	--
65	MAGNESIUM	Seed	157.0	1210.0	-0.6859232662349359	--
14	MANGANESE	Seed	0.3	2.1	-0.640542768950903	--
15	METHIONINE	Seed	3120.0	3720.0	-0.15358821377657803	--
15	METHIONINE	Leaf				--
3	MUCILAGE	Seed	180000.0	500000.0	1.906004826929004	--
39	NIACIN	Seed	2.1	16.0	-0.8048100092621951	--
2	NICOTINAMIDE	Seed				--
11	NICOTINIC-ACID	Seed	0.007	35.0	1.0	--
18	OLEIC-ACID	Seed				--
18	OLEIC-ACID	Seed Oil	186000.0	319800.0	-0.007287021917190672	--
4	ORIENTIN	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
9	OXALIC-ACID	Leaf				--
25	P-COUMARIC-ACID	Stem				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
25	P-COUMARIC-ACID	Plant				--
13	PALMITIC-ACID	Plant				--
13	PALMITIC-ACID	Seed Oil		276300.0	0.6280218333755967	--
2	PALMITOLEIC-ACID	Seed Oil		2100.0	-0.670863179255864	--
7	PHENYLALANINE	Seed	10320.0	11980.0	0.05249244529323463	--
7	PHENYLALANINE	Leaf				--
4	PHOSPHORUS	Seed	374.0	2880.0	-0.6536059517623403	--
9	PHYTIC-ACID	Seed				--
2	PHYTOSTEROLS	Seed		1400.0	-0.2662273492149403	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
14	POTASSIUM	Seed	133.0	1020.0	-1.0157522803870012	--
43	PYRIDOXINE	Plant				--
176	QUERCETIN	Plant				--
176	QUERCETIN	Seed				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
176	QUERCETIN	Flower				--
176	QUERCETIN	Leaf				--
44	QUERCITRIN	Plant		500.0		--
1	RAFFINOSE	Fruit	200.0	5500.0	1.0	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek ( <i>Trigonella foenum graecum</i> L.). <i>Plant Foods for Human Nutrition</i> . 46: 77-84, 1994.
1	RAFFINOSE	Seed	300.0	13500.0	1.6559299973233297	--
15	RIBOFLAVIN	Seed	0.4	3.2	-0.12425747315288925	--
87	RUTIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	SALICYLATES	Leaf	110.0	125.0	-0.30496792674060463	--
5	SAPONINS	Seed	2800.0	15000.0	-0.29217724865695144	--
60	SELENIUM	Seed	0.2	1.6	-0.24792901151074112	--
1	SERINE	Seed	12150.0	13365.0	0.5348376248294764	--
4	SILICON	Seed	0.6	4.7	-1.1485311425485372	--
3	SMILAGENIN	Leaf				--
3	SMILAGENIN	Seed		40.0		--
1	SODIUM	Seed	75.0	580.0	0.2049861038011039	--
1	SODIUM	Leaf	650.0	761.0	-0.5121260660753122	--
1	STACHYOSE	Seed	900.0	12300.0	-0.6935988302183245	--
1	STACHYOSE	Fruit	400.0	6100.0		Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek ( <i>Trigonella foenum graecum</i> L.). <i>Plant Foods for Human Nutrition</i> . 46: 77-84, 1994.
5	STARCH	Seed	19500.0	150000.0	-0.6485575814204301	--
8	STEARIC-ACID	Seed Oil		107400.0	-0.06097534681860657	--
8	STEARIC-ACID	Seed				--
12	STIGMASTEROL	Seed		70.0	-0.44129793216895535	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. <i>CRC Handbook of Lipids in Human Nutrition</i> . CRC Press. Boca Raton, FL. 233 pp.)
12	STIGMASTEROL	Tissue Culture	12.0	400.0	1.0	--
14	SUCROSE	Seed	1200.0	12700.0	-0.5172181885156314	--
14	SUCROSE	Fruit	400.0	2500.0	-0.7290899750660653	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek ( <i>Trigonella foenum graecum</i> L.). <i>Plant Foods for Human Nutrition</i> . 46: 77-84, 1994.
14	SULFUR	Plant		1670.0	-0.9306686293994814	--
5	SUPEROXIDE-DISMUTASE	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
31	THIAMIN	Seed	3.0	14.0	1.769297997513126	--
4	THREONINE	Seed	8980.0	9880.0	0.3897985305096268	--
4	THREONINE	Leaf				--
1	TIGOGENIN	Leaf				--
1	TIGOGENIN	Stem				--
1	TIGOGENIN	Seed				--
1	TIGOGENIN	Root				--
1	TIGOGENIN	Tissue Culture				--
1	TIGOGENIN	Pericarp				--
4	TIN	Seed	0.6	4.2	-0.03659983312250558	--
15	TRIGONELLINE	Plant				--
15	TRIGONELLINE	Tissue Culture				--
15	TRIGONELLINE	Cotyledon				--
15	TRIGONELLINE	Seed	1300.0	4000.0	0.5052704240518459	--
29	TRYPTOPHAN	Leaf				--
29	TRYPTOPHAN	Seed	2800.0	4300.0	0.3324763239301246	--
8	TYROSINE	Seed	6410.0	8400.0	0.15261517141910913	--
3	VALINE	Leaf				--
3	VALINE	Seed	9410.0	12120.0	0.013358445643284094	--
1	VERBASCOSE	Plant				--
12	VICENIN-2	Plant				--
12	VICENIN-2	Seed				--
1	VITAMIN-K	Plant	50.0	200.0		--
18	VITEXIN	Plant				--
18	VITEXIN	Seed		300.0		--
18	VITEXIN	Stem				--
3	XANTHOPHYLL	Leaf		400.0		--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
3	XYLOSE	Plant				--
77	ZINC	Seed				--