

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Vigna radiata*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	FOLACIN	Seed	5.8	7.3	1.9441202613457478	USDA's Ag Handbook 8 and sequelae)
3	SECOISOLARICIRESINOL	Seed		8.0	1.4142135623730951	H. Adlercreutz, pers. comm.
15	FOLACIN	Sprout Seedling	0.539	7.105	1.413645675036839	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Sprout Seedling	1.0	23.0	1.366529661191855	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Sprout Seedling	176.0	2560.0	1.2536866452701125	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Sprout Seedling	2.9	48.0	1.0	USDA's Ag Handbook 8 and sequelae)
2	PHASEOLLIDIN	Leaf Diffusate		13.0	1.0	--
12	STIGMASTEROL	Sprout Seedling	90.0	900.0	0.8603471050947832	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
4	LYSINE	Seed	16640.0	18296.0	0.8394693725634716	USDA's Ag Handbook 8 and sequelae)
1	VERBASCOSE	Seed		38000.0	0.8069899082183902	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	POTASSIUM	Sprout Seedling	1256.0	18092.0	0.787634347459963	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Seed	27560.0	30302.0	0.6847278409748893	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Sprout Seedling	1.4	25.0	0.5619514869490164	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Seed	18.0	22.0	0.5505732860064096	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Seed	14430.0	15865.0	0.516430426534178	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Sprout Seedling	80.0	840.0	0.5080005080007616	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Sprout Seedling	3.5	48.0	0.4949133977324324	USDA's Ag Handbook 8 and sequelae)
1	SERINE	Seed	11760.0	12930.0	0.45146965269624684	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Seed	6950.0	7642.0	0.4035349168214894	USDA's Ag Handbook 8 and sequelae)
1	RAFFINOSE	Seed		8000.0	0.39721461223664184	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	LEUCINE	Seed	18470.0	20308.0	0.30884152903706713	USDA's Ag Handbook 8 and sequelae)
3	ALANINE	Seed	10500.0	11545.0	0.2952261354048832	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Seed	5.4	7.7	0.26622392167809805	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Seed	42640.0	46883.0	0.21811788021109724	USDA's Ag Handbook 8 and sequelae)
15	RIBOFLAVIN	Sprout Seedling	1.0	15.0	0.21733051397161018	USDA's Ag Handbook 8 and sequelae)
1	STACHYOSE	Seed		25000.0	0.2038749490758906	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PHYTOSTEROLS	Sprout Seedling	150.0	1576.0	0.20000826367279287	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Seed	12370.0	13600.0	0.19563498523837364	USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Seed		0.09	0.18945418956322616	--
6	IRON	Sprout Seedling	5.6	132.0	0.1837537773991908	USDA's Ag Handbook 8 and sequelae)
20	CHOLINE	Seed	1670.0	1856.0	0.17283513534505482	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	POTASSIUM	Seed	12038.0	14170.0	0.14070477117081934	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Sprout Seedling	113.0	1506.0	0.12020083478511438	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Sprout Seedling	455.0	6560.0	0.11559491863278125	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Seed	7820.0	8598.0	0.10302216510907004	USDA's Ag Handbook 8 and sequelae)
3	ISOLEUCINE	Seed	10080.0	11083.0	0.07546930506301065	USDA's Ag Handbook 8 and sequelae)
53	BETA-CAROTENE	Sprout Seedling	0.1	1.4	0.05117933954512095	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Seed	7140.0	7850.0	0.02520639195119663	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Sprout Seedling	45.0	782.0	-0.03780760366122745	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Seed	9540.0	10489.0	-0.06696897779649544	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SULFUR	Seed	1880.0	2378.0	-0.08871295398445395	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
29	TRYPTOPHAN	Seed	2600.0	2859.0	-0.1589532693245532	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Seed	9.0	13.0	-0.1645816165812568	USDA's Ag Handbook 8 and sequelae)
7	CHLORINE	Seed	120.0	278.0	-0.1686206873836137	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	SODIUM	Seed	129.0	311.0	-0.22202937181087867	--
4	PHOSPHORUS	Seed	3260.0	4500.0	-0.22550634368040845	--
47	BETA-SITOSTEROL	Sprout Seedling	50.0	500.0	-0.22568905807670636	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
12	STIGMASTEROL	Seed	80.0	230.0	-0.23799593036853528	--
39	NIACIN	Sprout Seedling	6.8	85.0	-0.2472280725306782	USDA's Ag Handbook 8 and sequelae)
3	NICKEL	Seed		3.456	-0.24795004115301575	--
3	CADMIUM	Seed		0.165	-0.26456970735778806	--
14	ARGININE	Seed	16720.0	18383.0	-0.26496099366924114	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Sprout Seedling	7200.0	94500.0	-0.2729204592947363	USDA's Ag Handbook 8 and sequelae)
3	ISOLEUCINE	Sprout Seedling	1320.0	13866.0	-0.2746975758881879	USDA's Ag Handbook 8 and sequelae)
12	IODINE	Seed	0.034	0.037	-0.27497982395204346	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	RIBOFLAVIN	Seed	2.1	2.8	-0.2775591494321886	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Seed	1777.0	2203.0	-0.2935954770399224	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Sprout Seedling	320.0	3361.0	-0.29363830512965683	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Seed	2860.0	3145.0	-0.30206417164664323	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
81	GENISTEIN	Seed	2.0	21.8	-0.30346224755400253	--
112	ASCORBIC-ACID	Seed	48.0	53.0	-0.30663815817527246	--
6	IRON	Seed	58.0	84.0	-0.3103412217683818	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Seed	270.0	297.0	-0.3250213852082402	USDA's Ag Handbook 8 and sequelae)
7	SALICYLATES	Seed		0.0	-0.3401776874861938	--
23	FOLIC-ACID	Seed	1.4	1.6	-0.3528814296236972	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
53	BETA-CAROTENE	Seed	0.9	1.2	-0.35429746382896243	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Seed	26.0	31.0	-0.40121173892745016	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Sprout Seedling	4790.0	50315.0	-0.4166806780264269	USDA's Ag Handbook 8 and sequelae)
5	SAPONINS	Seed	500.0	6000.0	-0.42041667504648683	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
14	SUCROSE	Seed		18000.0	-0.44182122531441115	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
31	THIAMIN	Sprout Seedling	0.7	10.3	-0.45029259815110706	USDA's Ag Handbook 8 and sequelae)
32	DAIDZEIN	Seed	0.3	15.0	-0.46277160848299365	--
28	CALCIUM	Seed	1183.0	1602.0	-0.46730269971233074	USDA's Ag Handbook 8 and sequelae)
39	NIACIN	Seed	21.0	27.0	-0.47553477897955926	USDA's Ag Handbook 8 and sequelae)
28	CALCIUM	Sprout Seedling	110.0	1571.0	-0.4814496185209816	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Seed	9.6	12.2	-0.5147295792293065	USDA's Ag Handbook 8 and sequelae)
13	COUMESTROL	Seed		0.0	-0.5230347066964424	H. Adlercreutz, pers. comm.
1	MERCURY	Seed		0.036	-0.5272654042485163	--
15	FIBER	Seed	44950.0	66495.0	-0.5391807263159561	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Seed	710.0	1170.0	-0.5400050132406323	--
2	CAMPESTEROL	Seed	20.0	25.0	-0.5705099108545394	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
47	BETA-SITOSTEROL	Seed	130.0	150.0	-0.5734134054352104	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	PHYTOSTEROLS	Seed	230.0	253.0	-0.5815625959422273	USDA's Ag Handbook 8 and sequelae)
2	CYSTINE	Seed	2100.0	2309.0	-0.5850415482256782	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Seed	2500.0	4215.0	-0.6126319230675944	--
14	ARGININE	Sprout Seedling	1970.0	20693.0	-0.6182818649110114	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Sprout Seedling	340.0	3571.0	-0.6432645750200348	USDA's Ag Handbook 8 and sequelae)
1	BEHENIC-ACID	Seed	312.0	360.0	-0.6444484945139936	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	VALINE	Sprout Seedling	1300.0	13655.0	-0.6681497464396949	USDA's Ag Handbook 8 and sequelae)
4	PUFA	Sprout Seedling	580.0	6092.0	-0.7620713354824633	USDA's Ag Handbook 8 and sequelae)
4	PUFA	Seed	3840.0	4222.0	-0.7738443631639267	USDA's Ag Handbook 8 and sequelae)
13	MUFA	Seed	1610.0	1770.0	-0.7788039114002252	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Seed	3570.0	4890.0	-0.8759356101658239	--
3	ALANINE	Sprout Seedling	990.0	10399.0	-0.8997564719824734	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Sprout Seedling	1750.0	18382.0	-0.9050471491150544	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Sprout Seedling	700.0	7353.0	-0.9556870143562779	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Sprout Seedling	420.0	4412.0	-0.9574803669005961	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Sprout Seedling	1170.0	12290.0	-0.9617538723657231	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Seed	832.0	1770.0	-0.9645497721718662	USDA's Ag Handbook 8 and sequelae)

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4	THREONINE	Sprout Seedling	780.0	8192.0	-0.986620334205834	USDA's Ag Handbook 8 and sequelae)
2	CAMPESTEROL	Sprout Seedling	10.0	100.0	-1.0	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
3	KIEVITONE	Leaf Diffusate		24.0	-1.0	--
15	ALPHA-LINOLENIC-ACID	Sprout Seedling	160.0	1681.0	-1.0	USDA's Ag Handbook 8 and sequelae)
29	TRYPTOPHAN	Sprout Seedling	370.0	3886.0	-1.0	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Sprout Seedling	520.0	5462.0	-1.0269704318619173	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Sprout Seedling	930.0	6618.0	-1.1846966656046878	USDA's Ag Handbook 8 and sequelae)
2	CYSTINE	Sprout Seedling	170.0	1786.0	-1.1912060022841449	USDA's Ag Handbook 8 and sequelae)
1	SERINE	Sprout Seedling	330.0	3466.0	-1.2644569265786192	USDA's Ag Handbook 8 and sequelae)
13	MUFA	Sprout Seedling	220.0	2311.0	-1.305847565394658	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Sprout Seedling	220.0	2311.0	-1.305847565394658	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Sprout Seedling	1610.0	16912.0	-1.3307273280388923	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Sprout Seedling	1666.0	17437.0	-1.377095593970498	USDA's Ag Handbook 8 and sequelae)
22	ISOQUERCITRIN	Sprout Seedling				--
81	GENISTEIN	Plant				Stitt, Paul. Why George should eat broccoli.
8	INOSITOL	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	GALACTOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
56	NARINGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
14	SHIKIMIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

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16	FORMONONETIN	Plant				--
4	ADENOSINE-TRIPHOSPHATE	Sprout Seedling				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	MYRISTIC-ACID	Sprout Seedling		0.0		USDA's Ag Handbook 8 and sequelae)
87	RUTIN	Sprout Seedling				--
2	ASPARAGINE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	XYLOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
10	ROBININ	Plant				Stitt, Paul. Why George should eat broccoli.
25	P-COUMARIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
176	QUERCETIN	Sprout Seedling				--
7	GLUTATHIONE	Sprout Seedling				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
32	DAIDZEIN	Plant				--
32	BIOCHANIN-A	Plant				Stitt, Paul. Why George should eat broccoli.
3	MANNOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
32	DAIDZEIN	Sprout Seedling				--
1	QUINIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
75	KAEMPFEROL	Sprout Seedling				--

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43	PYRIDOXINE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	GLUCOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
10	ROBININ	Sprout Seedling				--
24	PECTIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	COUMESTROL	Sprout Seedling				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.