

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Anethum graveolens*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	(+)-CARVONE	Essential Oil	--	--		
2	(+)-CARVONE	Seed	--	--		
2	(+)-CARVONE	Seed Essent. Oil	--	--		
10	5-METHOXY-PSORALEN	Seed	--	--		
32	AESCULETIN	Seed	--	--		
32	AESCULETIN	Seed Essent. Oil	--	--		
15	ALPHA-LINOLENIC-ACID	Fruit	1500	1624	-0.41702058222254973	
15	ALPHA-LINOLENIC-ACID	Seed	1500	1624	-0.29885281200374875	USDA's Ag Handbook 8 and sequelae)
11	ALPHA-PHELLANDRENE	Leaf	20	8025	5.376830730634647	
11	ALPHA-PHELLANDRENE	Seed	125	7469	1.5339306210630879	
11	ALPHA-PHELLANDRENE	Essential Oil	--	--		
11	ALPHA-PHELLANDRENE	Shoot Essent. Oil	248800	525100	1.4141949197576593	
11	ALPHA-PHELLANDRENE	Seed Essent. Oil	--	--		
11	ALPHA-PHELLANDRENE	Root Essent. Oil	--	--		
28	ALPHA-PINENE	Fruit	24	1001	-0.4574419530274206	
28	ALPHA-PINENE	Seed	12	1001	-0.394802482900677	
28	ALPHA-PINENE	Leaf	25	405	-0.19825008164168667	
28	ALPHA-PINENE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Shoot Essent. Oil	17500	31700	1.9801582592954505	
28	ALPHA-PINENE	Seed Essent. Oil	--	--		
13	ALPHA-TERPINENE	Leaf	0.1	2100	0.7727809471570283	
13	ALPHA-TERPINENE	Shoot Essent. Oil	--	3400	-0.7201742929072495	
13	ALPHA-TERPINENE	Seed Essent. Oil	--	--		
13	ALPHA-TERPINENE	Essential Oil	--	--		
23	ALPHA-TERPINEOL	Plant	--	--		
23	ALPHA-TERPINEOL	Leaf	0.1	20	-0.5551409616382911	
23	ALPHA-TERPINEOL	Essential Oil	--	83800	2.9380498160693636	
32	ALPHA-TOCOPHEROL	Leaf	16	147	-0.6328641971482494	
5	ALUMINUM	Plant	4	210	-0.3394094982503418	ACTA AGRIC SCAND SUPPL 22: 1980
36	ANETHOLE	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
101	APIGENIN	Leaf	--	--		
2	APIOL	Essential Oil	--	--		
2	APIOL	Shoot	--	--		
2	APIOL	Root Essent. Oil	--	--		
2	APIOL	Seed	--	--		
20	APIOLE	Root	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	ARGININE	Fruit	12630	13678	2.498859968309268	
14	ARGININE	Seed	12630	13678	-0.46418798189668253	USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Plant	0.01	0.06	-0.44843252644734777	ACTA AGRIC SCAND SUPPL 22: 1980
112	ASCORBIC-ACID	Plant	1214	1440	-0.2556325868627872	
112	ASCORBIC-ACID	Seed	--	1150	0.35194448135668727	
26	BERGAPTEN	Fruit	--	--		
26	BERGAPTEN	Seed	--	--		
26	BERGAPTEN	Seed Essent. Oil	--	--		
5	BETA-ELEMENE	Fruit	12	77	-0.4611977234510915	
5	BETA-ELEMENE	Seed	12	77	-0.6456318401912606	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-EUDESOL	Essential Oil	--	--		
2	BETA-MYRCENE	Plant	--	--		
2	BETA-MYRCENE	Seed Essent. Oil	--	--		
2	BETA-MYRCENE	Essential Oil	--	--		
3	BETA-PHELLANDRENE	Fruit	168	1925	-0.1401637043460988	
3	BETA-PHELLANDRENE	Root	168	1925		
3	BETA-PHELLANDRENE	Leaf	120	2100	4.5514578733129	
3	BETA-PHELLANDRENE	Seed	25	1925	-0.06920272549899337	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	Essential Oil	--	31600	1.724225349934716	
3	BETA-PHELLANDRENE	Shoot Essent. Oil	82100	169300	1	
3	BETA-PHELLANDRENE	Root Essent. Oil	--	--		
3	BETA-PHELLANDRENE	Seed Essent. Oil	--	--		
13	BETA-PINENE	Plant	--	--		
13	BETA-PINENE	Leaf	1	40	-0.3701299985454314	
13	BETA-PINENE	Leaf Essent. Oil	--	13600	-0.3687230671050535	
13	BETA-PINENE	Shoot Essent. Oil	--	--		
13	BETA-PINENE	Essential Oil	--	--		
47	BETA-SITOSTEROL	Plant	--	490	-0.10551968168882546	
47	BETA-SITOSTEROL	Seed Essent. Oil	--	--		
47	BETA-SITOSTEROL	Seed	--	--		
47	BETA-SITOSTEROL	Root	--	--		
3	BETA-TERPINEOL	Fruit	--	--		
3	BETA-TERPINEOL	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
3	BETA-TERPINEOL	Seed	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
4	BORON	Plant	4	35	-0.4551354442400374	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	BORON	Seed	28	50	1.2280232969498832	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).
10	BUTYL-PHTHALIDE	Root	--	--		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.
3	CADMIUM	Plant	0.02	1	-0.33413040437309494	ACTA AGRIC SCAND SUPPL 22: 1980
102	CAFFEIC-ACID	Fruit	--	--		
102	CAFFEIC-ACID	Seed	--	--		
102	CAFFEIC-ACID	Leaf	--	1140	-0.5577746068901522	
28	CALCIUM	Fruit	14003	17671	3.1878884648612305	
28	CALCIUM	Plant	1900	21453	0.8411434580787619	
28	CALCIUM	Seed	14003	17671	2.483896866251749	
2	CAMPESTEROL	Plant	--	490	1.9454938284556806	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
9	CAMPHENE	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
41	CAMPHOR	Root	--	--		
37	CARVACROL	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
37	CARVACROL	Leaf	165	450	0.1349696974520959	
37	CARVACROL	Seed Essent. Oil	--	--		
1	CARVEOL	Leaf	225	600	0.9999999999999998	Wealth of India.
19	CARVONE	Plant	--	--		
19	CARVONE	Seed	4100	46200	1.3184783989470024	
19	CARVONE	Leaf	0.1	6365	1.0223609522154844	
19	CARVONE	Shoot Essent. Oil	--	145000	1.4134474688959218	
19	CARVONE	Root	--	--		
19	CARVONE	Leaf Essent. Oil	--	774300		
19	CARVONE	Essential Oil	273800	456000	0.9613797011049258	
19	CARVONE	Seed Essent. Oil	170000	455800	-0.9391038099371176	
77	CHLOROGENIC-ACID	Fruit	--	--		
77	CHLOROGENIC-ACID	Seed	--	--		
24	CHROMIUM	Plant	0.01	0.29	-0.8360358979548524	ACTA AGRIC SCAND SUPPL 22: 1980
3	CIS-OCIMENE	Essential Oil	--	--		
2	COBALT	Plant	0.002	0.29	-0.4679399461194481	ACTA AGRIC SCAND SUPPL 22: 1980
12	COPPER	Fruit	--	8	-0.3750564717845157	
12	COPPER	Plant	1.7	17	0.33037825900684764	
12	COPPER	Seed	8	8	-0.6181060132518703	USDA's Ag Handbook 8 and sequelae)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	DELTA-3-CARENE	Leaf	--	0.1	-0.4906741021305423	
9	DELTA-CADINENE	Leaf	1	3	-0.4510248293697561	
2	DIHYDROCARVEOL	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
2	DIHYDROCARVEOL	Leaf	150	400	0.916253604438744	
6	DILLAPIOL	Root Essent. Oil	--	--		
6	DILLAPIOL	Seed	--	--		
6	DILLAPIOL	Plant	--	--		
6	DILLAPIOL	Essential Oil	223000	266300		
6	DILLAPIOL	Leaf Essent. Oil	--	200		
6	DILLAPIOL	Shoot Essent. Oil	--	3100		
7	DIPENTENE	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
16	ELEMICIN	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
16	ELEMICIN	Shoot Essent. Oil	--	--		
5	ERGOSTEROL	Seed Essent. Oil	--	--		
30	ESCULETIN	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	ESCULETIN	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.
76	EUGENOL	Plant	--	--		
76	EUGENOL	Leaf	280	750	-0.7280702362058284	
76	EUGENOL	Essential Oil	--	--		
6	FENCHONE	Leaf	1	15	-0.40382222941102286	
61	FERULIC-ACID	Fruit	--	--		
61	FERULIC-ACID	Seed	--	--		
15	FIBER	Fruit	177230	264869	1.1625047691716495	
15	FIBER	Leaf	119300	128000	-0.41469774487153704	
15	FIBER	Seed	177230	264869	1.0272142583335766	
26	FLAVONE	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
6	FURFURAL	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
11	GAMMA-TERPINENE	Fruit	12	77	-0.6371546249494475	
11	GAMMA-TERPINENE	Seed	12	77	-0.8148071104880178	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Leaf	0.1	30	-0.314079686023923	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	GERANIOL	Fruit	24	154	0.33290806848468324	
35	GERANIOL	Seed	24	154	-1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	GERMACRENE-D	Leaf	70	190	-0.37126607051679333	
7	HISTIDINE	Fruit	3200	3466	1.229336833484955	
7	HISTIDINE	Seed	3200	3466	-0.7066452608029122	USDA's Ag Handbook 8 and sequelae)
30	HYPEROSIDE	Leaf	--	--		
25	IMPERATORIN	Seed Essent. Oil	--	--		
6	IRON	Fruit	114	230	0.3848598276758552	
6	IRON	Plant	23	755	0.1508119809777941	
6	IRON	Seed	114	230	0.3680195076933262	
6	IRON	Leaf	--	--		
16	ISOEUGENOL	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
3	ISOLEUCINE	Fruit	7670	8307	1.4023694860203781	
3	ISOLEUCINE	Seed	7670	8307	-0.2787525308175236	USDA's Ag Handbook 8 and sequelae)
22	ISOQUERCITRIN	Leaf	--	--		
11	ISORHAMNETIN	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
75	KAEMPFEROL	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
75	KAEMPFEROL	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	LAURIC-ACID	Fruit	100	108	-0.4441927698072271	
7	LAURIC-ACID	Seed	100	108	-0.5113625956002235	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Fruit	9250	10018	1.0452643502878531	
2	LEUCINE	Seed	9250	10018	-0.6761051130330088	USDA's Ag Handbook 8 and sequelae)
60	LIMONENE	Plant	--	--		
60	LIMONENE	Leaf	125	3735	3.4814383627388343	
60	LIMONENE	Essential Oil	467000	628800	2.882227993253224	
60	LIMONENE	Shoot Essent. Oil	--	119200	0.3094342045722538	
60	LIMONENE	Leaf Essent. Oil	--	214300	0.2690608628408047	
60	LIMONENE	Seed Essent. Oil	--	--		
60	LIMONENE	Root Essent. Oil	--	--		
53	LINALOOL	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
53	LINALOOL	Essential Oil	--	--		
7	LINALYL-ACETATE	Seed	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
27	LINOLEIC-ACID	Fruit	9600	10397	-0.2087139721578888	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	LINOLEIC-ACID	Seed	9600	10397	-0.828751087439793	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Plant	--	--		
7	LUTEOLIN-7-GLUCOSIDE	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
4	LYSINE	Fruit	10380	11242	1.8459850057143503	
4	LYSINE	Seed	10380	11242	-0.11603254287698407	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Fruit	2449	2893	0.3534351875253372	
65	MAGNESIUM	Plant	560	6470	0.7461924242723924	
65	MAGNESIUM	Seed	2449	2893	-0.02098100116423311	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Fruit	--	18	-0.2848478380503656	
14	MANGANESE	Plant	8	435	2.4228210372847276	
14	MANGANESE	Seed	18	18	-0.4424804207753204	USDA's Ag Handbook 8 and sequelae)
1	MERCURY	Plant	0.003	0.06	-0.5009617770057098	ACTA AGRIC SCAND SUPPL 22: 1980
15	METHIONINE	Fruit	1430	1549	0.7271352318996868	
15	METHIONINE	Seed	1430	1549	-0.7141817868825112	USDA's Ag Handbook 8 and sequelae)
4	METHYL-BENZOATE	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
6	METHYL-CHAVICOL	Fruit	--	--		
6	METHYL-CHAVICOL	Seed	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	MOLYBDENUM	Plant	--	0.1	-0.7655179249334362	ACTA AGRIC SCAND SUPPL 22: 1980
22	MYRCENE	Fruit	84	924	-0.24028812670479283	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	MYRCENE	Leaf	15	924	-0.1311775014332694	
22	MYRCENE	Seed	20	924	-0.5501224655274027	
22	MYRCENE	Shoot Essent. Oil	--	15600	-0.4397404959457284	
22	MYRCENE	Essential Oil	--	--		
6	MYRISTIC-ACID	Fruit	100	108	-0.2640487123172083	
6	MYRISTIC-ACID	Seed	100	108	-0.294589404195434	USDA's Ag Handbook 8 and sequelae)
31	MYRISTICIN	Fruit	--	--		
31	MYRISTICIN	Root	--	--		
31	MYRISTICIN	Seed	--	--		
31	MYRISTICIN	Leaf	45	220	-0.83677421638605	
31	MYRISTICIN	Root Essent. Oil	--	--		
31	MYRISTICIN	Essential Oil	--	203000	1	
31	MYRISTICIN	Shoot Essent. Oil	--	2000		
1	N-BUTYLPHTHALIDE	Root	--	--		
2	NEOCNIDOLIDE	Root	--	--		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.
39	NIACIN	Fruit	28	30	-0.41038049882634875	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
39	NIACIN	Plant	28	30	-0.6546703629814054	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Seed	28	30	-0.3857324434479313	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	NICKEL	Plant	0.1	4.7	-0.9948320067476139	ACTA AGRIC SCAND SUPPL 22: 1980
18	OLEIC-ACID	Fruit	93600	101369	0.30053967859239455	
18	OLEIC-ACID	Plant	--	--		
18	OLEIC-ACID	Seed	78000	101369	-0.14578751292878622	
4	OSTHOLE	Root	--	--		Wealth of India.
25	P-COUMARIC-ACID	Leaf	--	16	-0.34577655264533097	
16	P-CYMENE	Fruit	336	3773	-0.08029864689784445	
16	P-CYMENE	Seed	40	3773	0.2503968578555244	
16	P-CYMENE	Leaf	30	4460	3.3052402930466984	
16	P-CYMENE	Shoot	--	--		
16	P-CYMENE	Leaf Essent. Oil	--	21700	-0.45620901588660095	
16	P-CYMENE	Essential Oil	--	--		
16	P-CYMENE	Seed Essent. Oil	--	--		
16	P-CYMENE	Root Essent. Oil	--	--		
13	PALMITIC-ACID	Fruit	5800	6281	-0.26775372349168214	
13	PALMITIC-ACID	Seed	5800	6281	-0.5700036394768608	USDA's Ag Handbook 8 and sequelae)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	PALMITIC-ACID	Plant	--	--		
2	PALMITOLEIC-ACID	Fruit	500	542	-0.24636918327436183	
2	PALMITOLEIC-ACID	Seed	500	542	-0.28545713507529	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Plant	--	--		
4	PARAFFIN	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
4	PELLANDRENE	Essential Oil	--	--		
7	PHENYLALANINE	Fruit	6700	7256	1.3630311294640811	
7	PHENYLALANINE	Seed	6700	7256	-0.5116370330548264	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Fruit	2102	3723	0.153997696991918	
4	PHOSPHORUS	Plant	600	7625	1.9396126413461277	
4	PHOSPHORUS	Seed	2102	3723	-0.430835600149335	USDA's Ag Handbook 8 and sequelae)
2	PHYTOSTEROLS	Plant	--	1240	0.15885150061665407	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
61	PIPERINE	Seed	--	28.6	-1	
14	POTASSIUM	Fruit	10680	14122	-0.33571380248517246	
14	POTASSIUM	Plant	8700	76450	3.8114363499495174	
14	POTASSIUM	Seed	10680	14122	0.13648348307387825	USDA's Ag Handbook 8 and sequelae)
176	QUERCETIN	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Shoot	--	--		
4	QUERCETIN-3-RHAMNOGLUCOSIDE	Leaf	--	--		
44	QUERCITRIN	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
44	QUERCITRIN	Seed	--	500		
15	RIBOFLAVIN	Fruit	--	3	-0.4303249009534089	
15	RIBOFLAVIN	Plant	3	3	-0.5861819139119265	USDA's Ag Handbook 8 and sequelae)
15	RIBOFLAVIN	Seed	3	3	-0.20090831129253928	USDA's Ag Handbook 8 and sequelae)
57	ROSMARINIC-ACID	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
87	RUTIN	Leaf	--	1400	-0.9176299796056019	Varnaite, R. 1988. Rutin Content in Capsicum, Capsella, Urtica, Primula, Lepidium, Lactuca, Brassica, Anethum, Beta, Petroselinum, Allium Genera Representatives. Liet Tsr Mokslu Akad Darb Ser C, 4: 29-32.
5	SABINENE	Plant	--	--		
5	SABINENE	Leaf	5	15	-0.25165177043728276	
5	SABINENE	Essential Oil	--	--		
5	SABINOL	Leaf	1	3	-1.3518433080577976	
5	SABINOL	Shoot Essent. Oil	--	5000		
29	SAFROLE	Plant	125	360	0.554163659253734	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
29	SAFROLE	Seed Essent. Oil	--	--		
7	SALICYLATES	Seed	70	945	4.730027580498452	
44	SCOPOLETIN	Fruit	--	--		
44	SCOPOLETIN	Seed	--	--		
44	SCOPOLETIN	Shoot	--	2		
44	SCOPOLETIN	Root	--	--		
44	SCOPOLETIN	Seed Essent. Oil	--	--		
60	SELENIUM	Plant	0.001	0.012	-0.42698636145174623	ACTA AGRIC SCAND SUPPL 22: 1980
4	SILICON	Plant	30	700	3.674360216691932	ACTA AGRIC SCAND SUPPL 22: 1980
1	SODIUM	Fruit	158	262	-0.15910562070334694	
1	SODIUM	Plant	1097	3308	-0.12095943629882361	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Seed	158	262	-0.29981285993350754	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Fruit	1000	1083	-0.2073990310361778	
8	STEARIC-ACID	Seed	1000	1083	-0.541892617814625	USDA's Ag Handbook 8 and sequelae)
12	STIGMASTEROL	Plant	--	420	1.1614156001580258	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	Root	--	--		
12	STIGMASTEROL	Seed Essent. Oil	--	--		
14	SULFUR	Plant	1400	11175	3.111094705278092	ACTA AGRIC SCAND SUPPL 22: 1980

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Fruit	12	77	-0.3466854896821412	
23	TERPINEN-4-OL	Seed	0.1	77	-0.6507040021716104	
23	TERPINEN-4-OL	Leaf	5	15	-0.33175766291960446	
23	TERPINEN-4-OL	Essential Oil	--	--		
9	TERPINOLENE	Leaf	0.1	50	-0.1684008925639172	
31	THIAMIN	Fruit	4	5	-0.0425885992841977	
31	THIAMIN	Plant	4	5	-0.2209949208584362	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Seed	4	5	-0.37795068225120004	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Fruit	5750	6227	1.3340819873960998	
4	THREONINE	Seed	5750	6227	-0.4273575247230049	USDA's Ag Handbook 8 and sequelae)
71	THYMOL	Shoot Essent. Oil	--	1600	-0.6613738654809941	
1	TOLUENE	Shoot Essent. Oil	--	--		
8	TRANS-ANETHOLE	Fruit	12	539	-0.9826483469276708	
8	TRANS-ANETHOLE	Seed	12	539	-1.3057099249333581	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	TRANS-CARVEOL	Fruit	42	270	1	
1	TRANS-CARVEOL	Seed	42	270	1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	UMBELLIFERONE	Fruit	--	--		
22	UMBELLIFERONE	Seed	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	UMBELLIFERONE	Root	--	--		
22	UMBELLIFERONE	Seed Essent. Oil	--	--		
1	URANIUM	Leaf	--	0.16		Wealth of India.
1	URANIUM	Root	--	7.9	0.9999999999999998	Wealth of India.
3	VALINE	Fruit	11200	12130	1.5839770667175401	
3	VALINE	Seed	11200	12130	0.014590043883791455	USDA's Ag Handbook 8 and sequelae)
16	VANADIUM	Leaf	--	0.84	-0.8876491141170819	Wealth of India.
3	VICENIN	Fruit	--	--		
3	VICENIN	Seed	--	--		
1	VITAMIN-K	Seed	50	200		
3	XANTHOPHYLL	Fruit	--	--		
3	XANTHOPHYLL	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
43	XANTHOTOXIN	Seed	--	--		
2	Z-LIGUSTILIDE	Root	--	--		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.
77	ZINC	Fruit	43	66	1.0740192620721936	
77	ZINC	Plant	11	150	0.9651488572052452	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Seed	43	66	0.592445203168114	USDA's Ag Handbook 8 and sequelae)