

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Apium graveolens*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(+)-LIMONENE	Seed Essent. Oil		988000.0	1.4139579998472263	--
0	(+)-LIMONENE	Shoot				--
0	(+)-LIMONENE	Seed				--
0	(+)-LIMONENE	Essential Oil				--
0	(+)-SELINENE	Essential Oil				--
0	(-)-MARMESIN	Seed		12.0		--
0	(E)-8(9)-P-MENTHEN-1,2-DIOL?	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	(E)-ALPHA-BERGAMOTENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	(E)-BETA-OCIMENE	Seed	7.0	10.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	(Z)-BETA-OCIMENE	Seed	6.0	9.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	1(7),8(10)-P-MENTHADIEN-2-OL?	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	1,4-DIMETHYL-7-(1-METHYLETHENYL)-OCTAHYDRO-AZULENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	1-P-MENTHENE-9-AL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	3,7,11-TRIMETHYL-1,2,6,10-DODECATRIENOL?	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	3-BUTYLHEXAHYDROPHTHALIDE	Root				--
0	3-BUTYLPHTHALIDE	Seed	40.0	120.0		--
0	3-ISOBUTYLIDENE-3-(A)-4-DIHYDROPHTHALIDE	Seed Essent. Oil	727.0	10000.0		--
0	3-ISOBUTYLIDENE-3-(A)-4-DIHYDROPHTHALIDE	Shoot		0.7		--
0	3-ISOBUTYLIDENE-3-A,4-DIHYDROPHTHALIDE	Seed	133.0	1500.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	3-ISOBUTYLIDENE-PHTHALIDE	Seed Essent. Oil				--
0	3-ISOBUTYLIDENE-PHTHALIDE	Shoot		0.001		--
0	3-ISOBUTYLIDENE-PHTHALIDE	Plant		0.001		--
0	3-ISOVALERIDENE-3A,4-DIHYDROPHTHALIDE	Leaf				--
0	3-ISOVALERIDENE-PHTHALIDE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	3-ISOVALIDENE-3A,4-DIHYDROPHTHALIDE	Shoot		0.003		--
0	3-ISOVALIDENE-3A,4-DIHYDROPHTHALIDE	Leaf		0.003		--
0	3-ISOVALIDENE-3A,4-DIHYDROPHTHALIDE	Essential Oil		255.0		--
0	3-ISOVALIDENE-3A,4-DIHYDROPHTHALIDE	Seed Essent. Oil		255.0		--
0	3-ISOVALIDENE-PHTHALIDE	Plant		0.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	3-ISOVALIDENE-PHTHALIDE	Seed Essent. Oil				--
0	3-ISOVALIDENE-PHTHALIDE	Shoot		0.001		--
0	3-METHYL-4-ETHYL-HEXANE	Root Essent. Oil		124000.0		--
0	3-N-BUTYL-4,5-DIHYDROPHTHALIDE	Seed				--
10	3-N-BUTYL-PHTHALIDE	Fruit Essent. Oil		108000.0		--
10	3-N-BUTYL-PHTHALIDE	Seed Essent. Oil		108000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	3-N-BUTYL-PHTHALIDE	Seed				--
10	3-N-BUTYL-PHTHALIDE	Leaf Essent. Oil		40000.0		--
0	3-N-BUTYLHEXAHYDROPHTHALIDE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	4-DIHYDROPHTHALIDE	Seed	57.0	1500.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	5,6,7-TRIMETHYLPSORALEN	Pt				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	5-ALPHA-ANDROST-16-EN-3-ONE	Plant		0.009		--
0	5-ALPHA-ANDROST-16-EN-3-ONE	Shoot		0.009		--
0	5-METHOXY-8-O-BETA-D-GLUCOSYL-OXYPSORALEN	Seed		2.9		--
10	5-METHOXY-PSORALEN	Seed	0.0	7.0	1.0	--
10	5-METHOXY-PSORALEN	Leaf Wax		2.0		--
10	5-METHOXY-PSORALEN	Fruit	0.0	7.0	-0.18569533817705186	--
0	6,10,14-TRIMETHYL-2-PENTADECANONE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
2	7-[3-(3,4-DIHYDROXY-4-HYDROXYMETHYL-TETRAHYDRO-FURAN-2-YLOXY)-4,5-DIHYDROXY-6-HYDROXYMETHYL-TETRAHYDRO-PYRAN-2-YLOXY]...	Seed				--
0	8-HYDROXY-5-METHOXY-PSORALEN	Seed		375.0		--
0	8-HYDROXYFALCARINONE	Root		8.3		--
21	8-METHOXY-PSORALEN	Leaf	0.0	1.0		--
6	ACETALDEHYDE	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	ACETALDEHYDE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	ACETIC-ACID	Plant				--
11	ADENINE	Plant				--
28	ADENOSINE	Plant				--
3	ALANINE	Pt	220.0	4665.0		USDA's Ag Handbook 8 and sequelae)
0	ALLOOCIMENE-I	Leaf Essent. Oil		1000.0		--
0	ALLOOCIMENE-II	Leaf Essent. Oil		1000.0		--
3	ALPHA-CEDRENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	ALPHA-EUDESOL	Seed	76.0	225.0		--
2	ALPHA-HUMULENE	Leaf	266.0	2500.0	3.7785413446723948	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	ALPHA-HUMULENE	Seed	20.0	33.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
5	ALPHA-IONONE	Plant				--
5	ALPHA-IONONE	Seed Essent. Oil		500.0		--
15	ALPHA-LINOLENIC-ACID	Seed	1600.0	2554.0	-0.2805131186501865	USDA's Ag Handbook 8 and sequelae)
0	ALPHA-P-DIMETHYL-STYRENE	Seed	170.0	270.0	1.392044546138226	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Fruit		2000.0	0.431635886715178	--
11	ALPHA-PHELLANDRENE	Seed Essent. Oil		2000.0	-0.8573553114168811	--
28	ALPHA-PINENE	Seed		300.0	-0.47140904876924467	--
28	ALPHA-PINENE	Et	12000.0	14000.0	-1.0	--
28	ALPHA-PINENE	Stem Essent. Oil		14000.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Root Essent. Oil		179000.0	0.7700366703490429	--
28	ALPHA-PINENE	Seed Essent. Oil	10000.0	10500.0	-0.6694735069151678	--
28	ALPHA-PINENE	Leaf Essent. Oil		2000.0	-0.7421534872468563	--
28	ALPHA-PINENE	Fruit Essent. Oil		10000.0	-0.7166152772658864	--
2	ALPHA-SANTALOL	Seed				--
3	ALPHA-SELINENE	Seed	95.0	250.0		--
3	ALPHA-SELINENE	Seed Essent. Oil		20500.0		--
13	ALPHA-TERPINENE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	ALPHA-TERPINENE	Fruit Essent. Oil		1000.0	-0.8348120728111189	--
13	ALPHA-TERPINENE	Leaf Essent. Oil				--
13	ALPHA-TERPINENE	Seed Essent. Oil		1000.0	-1.0089204175742374	--
23	ALPHA-TERPINEOL	Fruit Essent. Oil	3000.0	14000.0	-0.30405553353793474	--
23	ALPHA-TERPINEOL	Seed Essent. Oil	5000.0	14000.0	-0.651073092591952	--
23	ALPHA-TERPINEOL	Essential Oil				--
23	ALPHA-TERPINEOL	Seed	1.0	420.0	-0.37493466702522626	--
23	ALPHA-TERPINEOL	Root Essent. Oil		69000.0	1.0	--
23	ALPHA-TERPINEOL	Leaf Essent. Oil		1000.0	-0.8444420280137835	--
0	ALPHA-TERPINYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-TERPINYL-PROPIONATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
32	ALPHA-TOCOPHEROL	Pt	3.0	67.0	1.0	--
32	ALPHA-TOCOPHEROL	Plant	0.0	64.0	-1.0	--
32	ALPHA-TOCOPHEROL	Shoot	0.0	64.0		--
32	ALPHA-TOCOPHEROL	Leaf	136.0	266.0	-0.22853429341464526	--
32	ALPHA-TOCOPHEROL	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	ALUMINUM	Root	0.3	9.0	-0.3076511978543176	ACTA AGRIC SCAND SUPPL 22: 1980
0	AMMONIA	Pt		15480.0		--
0	AMMONIA	Stem		19600.0		--
1	ANGELIC-ACID	Plant				--
17	ANGELICIN	Stem				--
0	ANILINE	Pt		0.7		--
101	APIGENIN	Seed				--
101	APIGENIN	Pt	0.0	1910.0		--
101	APIGENIN	Plant				--
0	APIGENIN-7-APIOSYLGLUCOSIDE	Seed				--
0	APIGENIN-7-BETA-APIOSYL-GLUCOSIDE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	APIGRAVIN	Seed				--
4	APIIN	Seed				--
4	APIIN	Plant		2000.0		--
20	APIOLE	Essential Oil				--
20	APIOLE	Seed	115.0	180.0	-1.0	--
0	APIUMETIN	Seed		13.0		--
0	APIUMETRIN	Seed				Chemical Constituents of Oriental Herbs (3 diff. books)
0	APIUMOSIDE	Seed		125.0		--
0	ARABINOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
14	ARGININE	Pt	200.0	4105.0		USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Root	0.01	0.09	-0.2036587057933666	ACTA AGRIC SCAND SUPPL 22: 1980
0	ARSENIC-OXIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
112	ASCORBIC-ACID	Seed	171.0	1700.0	0.6821363243307782	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Pt	58.0	2778.0	-0.2550992791713734	--
112	ASCORBIC-ACID	Plant	17.0	129.0	-0.563401826162719	--
112	ASCORBIC-ACID	Fruit	357.0	1700.0	-0.17878811783375667	--
112	ASCORBIC-ACID	Shoot	17.0	129.0	-0.3648933330728539	--
0	ASH	Seed	6720.0	106294.0	1.7569512588202132	--
0	ASH	Root	8300.0	100000.0	0.9263745562711385	ACTA AGRIC SCAND SUPPL 22: 1980
0	ASH	Pt	6000.0	219000.0	1.0411508948922918	--
0	ASH	Fruit	6720.0	32000.0	-0.6386766393183354	--
2	ASPARAGINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ASPARAGINE(FREE)	Seed				Wealth of India.
3	ASPARTIC-ACID	Shoot				--
3	ASPARTIC-ACID	Pt	1130.0	23880.0		USDA's Ag Handbook 8 and sequelae)
0	BENTONITE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	BENZOIC-ACID-4-O-BETA-D-GLUCOSIDE	Seed		56.0	1.0	--
0	BENZOIC-ACID-4-O-BETA-D-GLUCOSIDE	Root		3.0	-1.0	--
0	BENZOYL-BENZOATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BENZYL-AMINE	Stem		3.4		--
17	BENZYL-BENZOATE	Shoot				--
26	BERGAPTEN	Seed		1.0	-0.8858167353904262	--
26	BERGAPTEN	Pt	0.04	0.81		--
26	BERGAPTEN	Plant		520.0	-1.0	--
26	BERGAPTEN	Shoot		145.0	-1.0	--
26	BERGAPTEN	Leaf		1.17	-0.5894785933481757	--
26	BERGAPTEN	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	BETA-CAROTENE	Pt	1.0	144.0	1.4105317625651812	--
53	BETA-CAROTENE	Seed	7.5	36.0	1.8210249021680307	--
53	BETA-CAROTENE	Fruit	8.0	36.0	-0.0812132777507324	--
0	BETA-CARYOPHYLLENE	Fruit Essent. Oil	5000.0	43000.0	-0.3340654939269333	--
0	BETA-CARYOPHYLLENE	Seed	55.0	1290.0	0.859268747623255	--
0	BETA-CARYOPHYLLENE	Seed Essent. Oil	5000.0	43000.0	-1.0	--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil		5000.0	-0.3762214301968018	--
5	BETA-ELEMENE	Leaf Essent. Oil				--
5	BETA-ELEMENE	Seed	1.0	875.0	1.4124808434543825	--
5	BETA-ELEMENE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	BETA-ELEMENE	Fruit Essent. Oil		35000.0	1.6778472777341984	--
5	BETA-ELEMENE	Seed Essent. Oil		35000.0		--
13	BETA-EUDES MOL	Seed	76.0	225.0		--
0	BETA-HUMULENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Fruit		2000.0	-0.1272127645580522	--
3	BETA-PHELLANDRENE	Seed Essent. Oil	200.0	2000.0	-1.027685692005648	--
13	BETA-PINENE	Seed	57.0	1530.0	-0.5053346825286588	--
13	BETA-PINENE	Root Essent. Oil		179000.0	1.3589513237802975	--
13	BETA-PINENE	Fruit Essent. Oil	5.0	15000.0	-0.5950573182789025	--
13	BETA-PINENE	Stem Essent. Oil		12000.0	-1.0	--
13	BETA-PINENE	Seed Essent. Oil	5000.0	15000.0	-0.7438446821280019	--
13	BETA-PINENE	Leaf Essent. Oil		2000.0	-0.9267593911993299	--
3	BETA-SELINENE	Fruit Essent. Oil	55000.0	325000.0	1.0	--
3	BETA-SELINENE	Seed Essent. Oil	55000.0	325000.0		--
3	BETA-SELINENE	Seed	100.0	9750.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-SELINENE	Stem Essent. Oil		10000.0		--
3	BETA-SELINENE	Leaf Essent. Oil		30000.0	1.0	--
47	BETA-SITOSTEROL	Seed		210.0	-0.550389634708716	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	Pt		30.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	BIACETYL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
4	BORON	Seed	43.0	61.0	1.7498078343361594	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).
4	BORON	Root	4.0	103.0	2.919010239761024	--
0	BROMINE	Root		1.0	-1.1020868276694642	ACTA AGRIC SCAND SUPPL 22: 1980
0	BUTYLIDENE-NAPHTHALIDE	Essential Oil				--
10	BUTYLIDENE-PHTHALIDE	Fruit Essent. Oil		4000.0		--
10	BUTYLIDENE-PHTHALIDE	Stem Essent. Oil		12000.0		--
10	BUTYLIDENE-PHTHALIDE	Seed Essent. Oil		4000.0		--
10	BUTYLIDENE-PHTHALIDE	Et		12000.0		--
10	BUTYLIDENE-PHTHALIDE	Leaf Essent. Oil		15000.0		--
0	BUTYLPHENYL-KETONE	Seed	38.0	60.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	BUTYLPHENYL-KETONE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	C-PRENYL-COUMARINS	Seed				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
3	CADMIUM	Root	0.001	0.364	-0.49785433960777487	ACTA AGRIC SCAND SUPPL 22: 1980
102	CAFFEIC-ACID	Seed				Wealth of India.
102	CAFFEIC-ACID	Leaf				--
102	CAFFEIC-ACID	Root				--
28	CALCIUM	Seed	170.0	20776.0	3.054154794705198	--
28	CALCIUM	Root	340.0	3635.0	-0.4126425625417656	ACTA AGRIC SCAND SUPPL 22: 1980
28	CALCIUM	Pt	313.0	11918.0	-1.4133911092017	--
28	CALCIUM	Fruit	1680.0	8000.0	0.9562048951774965	--
2	CAMPESTEROL	Seed		50.0	-0.5188689275444304	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	CAMPESTEROL	Pt				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	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
9	CAMPHENE	Leaf Essent. Oil		1000.0	-0.8415153554301138	--
9	CAMPHENE	Seed Essent. Oil				--
3	CAPRIC-ACID	Leaf	200.0	213.0	-1.0	USDA's Ag Handbook 8 and sequelae)
0	CAR-3-ENE	Essential Oil				--
0	CAR-3-ENE	Seed Essent. Oil				--
0	CARBOHYDRATES	Pt	36300.0	684980.0	-0.4019274925269096	--
0	CARBOHYDRATES	Seed	413500.0	439964.0	-0.33160060847415757	USDA's Ag Handbook 8 and sequelae)
0	CAROTENES	Leaf	80.0	145.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CARVEOL	Plant				--
0	CARVEOL-ACETATE	Shoot				--
0	CARVEOL-ACETATE	Plant				--
19	CARVONE	Seed	19.0	75.0	-1.2079718747791435	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
19	CARVONE	Leaf		1.0	-0.2826540108062902	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
19	CARVONE	Seed Essent. Oil	900.0	550000.0	-0.4461789646766616	--
19	CARVONE	Essential Oil	2000.0	5000.0	-0.840408219433312	--
19	CARVONE	Shoot				--
19	CARVONE	Fruit Essent. Oil		550000.0	1.414109513569833	--
0	CARVYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE	Seed Essent. Oil		1700.0		--
8	CARYOPHYLLENE-OXIDE	Seed	125.0	200.0	-1.3209276708861737	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	CELEREIN	Seed		13.3		--
0	CELEREOSIDE	Seed				--
0	CELERIN	Seed				--
0	CELEROSIDE	Seed				--
77	CHLOROGENIC-ACID	Leaf				--
77	CHLOROGENIC-ACID	Seed				Wealth of India.
77	CHLOROGENIC-ACID	Root				--
20	CHOLINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CHOLINE-ASCORBATE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	CHROMIUM	Seed				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
24	CHROMIUM	Fruit				--
24	CHROMIUM	Root	0.002	0.045	-0.5509691200246839	ACTA AGRIC SCAND SUPPL 22: 1980
0	CHRYSOERIOL-7-APIOSYL-GLUCOSIDE	Seed				--
0	CHRYSOERIOL-GLUCOSIDE	Plant				--
60	CINNAMALDEHYDE	Seed Essent. Oil		1500.0		--
0	CIS-1(7),8-DIEN-2-OL	Plant				--
0	CIS-3-HEXEN-1-YL-PYRUVATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	CIS-3-HEXENOL	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-3-HEXENOL-PYRUVATE	Plant				--
0	CIS-3-HEXENYL-ACETATE	Plant				--
0	CIS-BETA-OCIMENE	Seed Essent. Oil				--
0	CIS-CARVEOL	Seed Essent. Oil		1000.0		--
0	CIS-CARVEOL	Fruit Essent. Oil		1000.0	1.0	--
0	CIS-CARVEOL	Essential Oil				--
0	CIS-CARVYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-DIHYDRO-ISOCARVONE	Fruit Essent. Oil		15000.0		--
0	CIS-DIHYDRO-ISOCARVONE	Seed Essent. Oil		15000.0		--
0	CIS-DIHYDROCARVONE	Seed		1.0	-0.711177031842887	--
0	CIS-LIGUSTILIDE	Root				--
0	CIS-LIMONENE-OXIDE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CIS-OCIMENE	Leaf	2000.0	2500.0	1.4135514162255571	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	CIS-OCIMENE	Et		78000.0		--
3	CIS-OCIMENE	Root Essent. Oil		68000.0		--
3	CIS-OCIMENE	Stem Essent. Oil		78000.0		--
3	CIS-OCIMENE	Leaf Essent. Oil		145000.0		--
0	CIS-P-MENTHA-1(7),8-DIEN-2-YL-ACETATE	Plant				--
0	CIS-P-MENTHA-2,8-DIEN-1-OL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	CITRIC-ACID	Pt				--
23	CITRIC-ACID	Root				--
20	CITRONELLAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	CITRONELLAL	Shoot				--
0	CITRONELLOL-ACETATE	Shoot				--
2	CITRONELLYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	CNIDILIDE	Root				--
2	COBALT	Seed	0.4	2.0	-0.11920111863142302	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	COBALT	Fruit	0.4	2.0	-0.29299669899909336	--
2	COBALT	Root		0.005	-0.5451001113256595	ACTA AGRIC SCAND SUPPL 22: 1980
0	COLUMBIANETIN	Stem				--
12	COPPER	Seed		14.0	-0.07387673724713412	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Root	0.7	11.0	-0.07975431813856294	ACTA AGRIC SCAND SUPPL 22: 1980
12	COPPER	Pt	0.4	7.0	1.0000000000000007	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
57	COUMARIN	Plant				--
0	COUMARIN-GLYCOSIDES	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	COUMARINS	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	CYSTINE	Pt	40.0	755.0		USDA's Ag Handbook 8 and sequelae)
0	D-SELINENE	Seed	1900.0	4500.0		--
1	DECYL-ACETATE	Shoot				--
1	DECYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DEHYDROASCORBIC-ACID	Shoot				--
0	DEHYDROASCORBIC-ACID	Plant				--
0	DELTA-6,7-OCTADECANOIC-ACID	Seed				Wealth of India.
0	DELTA-7,8-OCTADECANOIC-ACID	Seed				Wealth of India.
0	DELTA-SELINENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	DI-N-PROPYL-AMINE	Pt		0.9		--
2	DIACETYL	Shoot				--
2	DIACETYL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DIHYDRO-ISOCARVEOL	Seed Essent. Oil		2000.0		--
2	DIHYDROCARVEOL	Essential Oil				--
2	DIHYDROCARVEOL	Leaf				--
2	DIHYDROCARVEOL	Fruit Essent. Oil		2000.0	1.0	--
2	DIHYDROCARVEOL	Seed Essent. Oil		1000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIHYDROCARVONE	Seed Essent. Oil		5000.0		--
0	DIHYDROCARVONE	Seed	0.0	150.0	-1.2270843709635864	--
0	DIHYDROCARVONE	Essential Oil	0.0	5000.0	-0.5088490622892315	--
1	DIHYDROCARVYL-ACETATE	Plant				--
0	DIHYDRONEOCARVEOL	Fruit Essent. Oil		1000.0		--
0	DIHYDRONEOCARVEOL	Seed Essent. Oil		1000.0		--
0	DIHYDRONEOISOCARVEOL	Fruit Essent. Oil		2000.0		--
0	DIHYDRONEOISOCARVEOL	Seed Essent. Oil		2000.0		--
2	DIMETHYL-AMINE	Stem		5.1		--
2	DIMETHYL-AMINE	Pt		5.1		--
0	DIPENTENE-OXIDE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
3	DIPHENYLAMINE	Plant				Karawva, M. S., Khayyal, S. E., Farrag, N. M., Ayad, M. M. 1986. Screening of Diphenylamine as an Antihyperglycemic in Certain Edible Plant Organs. Egypt J. Pharm. Sci., 25(1,2,3): 21-25.
0	DODECAN-1-AL	Shoot				--
2	DODECANAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	E-BUTYLIDENEPHTHALIDE	Plant				--
0	E-LIGUSTILIDE	Plant		1.0		--
2	ELEMOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	EO	Fruit	42000.0	200000.0	3.067440392195637	--
0	EO	Seed	4200.0	30000.0	-0.17124289278893168	--
0	EPOXYCARYOPHYLLENE	Seed Essent. Oil		5500.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EUDESMOL	Fruit Essent. Oil	5000.0	10000.0		--
0	EUDESMOL	Seed Essent. Oil	2900.0	10000.0		--
76	EUGENOL	Plant				Stitt, Paul. Why George should eat broccoli.
76	EUGENOL	Seed Essent. Oil				--
13	FALCARINDIOL	Root		3.3	-1.0293857207627424	--
3	FALCARINONE	Root		1.7	-1.0	--
0	FARCARINOL	Root	200.0	1400.0		--
0	FAT	Fruit	13860.0	66000.0	-0.1371493986322384	--
0	FAT	Leaf	1300.0	42000.0	-0.28818340493506195	--
0	FAT	Seed	13860.0	279483.0	0.0742455598506243	--
0	FENCHOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
61	FERULIC-ACID	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	FIBER	Seed	106750.0	138586.0	0.03006212223460727	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Pt	6900.0	158000.0	-0.42530368144617087	--
0	FIBER(CRUDE)	Fruit		171000.0	0.39638478898989327	--
0	FIBER(DIETARY)	Fruit		320000.0	-0.9715942860730087	--
0	FLAVONOIDS	Leaf		420.0	-0.9474235611430815	--
0	FOLIACIN	Pt	0.3	5.6		USDA's Ag Handbook 8 and sequelae)
12	FORMALDEHYDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	FORMALDEHYDE	Shoot				--
8	FRUCTOSE	Plant				--
8	FRUCTOSE	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	FUMARIC-ACID	Pt				--
7	FUMARIC-ACID	Root				--
0	FURANOCOUMARINS	Leaf	1.4	2.3	-1.0000000000000002	--
0	FURANOCOUMARINS	Pt	0.86	2.86		--
1	GALACTOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	GALACTURONIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
3	GAMMA-DECALACTONE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	GAMMA-SELINENE	Plant				--
0	GAMMA-SELINENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
11	GAMMA-TERPINENE	Seed	7.0	10.0	-0.8268964662241418	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
11	GAMMA-TERPINENE	Leaf Essent. Oil				--
0	GAMMA-TERPINEOL	Seed Essent. Oil		5000.0		--
0	GAMMA-TERPINEOL	Seed	57.0	125.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	GAMMA-TERPINEOL	Fruit Essent. Oil	3000.0	5000.0		--
8	GENTISIC-ACID	Leaf				Griffiths, L. A. 1959. On the Distribution of Gentisic Acid in Green Plants. J. Exp. Biol. 10: 437.
0	GERANIOL-ACETATE	Shoot				--
0	GERANIOL-ACETATE	Seed Essent. Oil		400.0	-1.0530439054012875	--
0	GERANIOL-BUTYRATE	Shoot				--
5	GERANYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	GERANYL-BUTYRATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	GLUCOSE	Shoot				--
7	GLUCOSE	Plant				--
0	GLUCOSIDASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
8	GLUTAMIC-ACID	Pt	860.0	18285.0		USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Shoot				--
0	GLUTAMIC-ACID(FREE)	Seed				Wealth of India.
5	GLUTAMINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	GLYCINE	Pt	210.0	4290.0		USDA's Ag Handbook 8 and sequelae)
4	GLYCOLIC-ACID	Root				--
0	GRAVEOBIOSIDE-A	Seed				--
0	GRAVEOBIOSIDE-B	Seed				--
18	GUAIACOL	Seed				--
18	GUAIACOL	Leaf				--
18	GUAIACOL	Shoot				--
18	GUAIACOL	Essential Oil				--
0	HEPTAN-1-AL	Shoot				--
0	HEPTAN-1-OL	Shoot				--
0	HEPTANAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	HEPTANOL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	HERNIARIN	Leaf				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	HEX-CIS-3-EN-1-OL	Essential Oil				--
0	HEX-CIS-3-EN-1-OL-PYRUVATE	Shoot				--
0	HEX-TRANS-3-EN-1-OL	Essential Oil				--
0	HEXAN-1-AL	Shoot				--
0	HEXAN-1-OL	Shoot				--
0	HEXAN-1-OL	Essential Oil				--
5	HEXANAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	HEXANOL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	HISTIDINE	Pt	110.0	2425.0		USDA's Ag Handbook 8 and sequelae)
0	HUMULADIENONE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
2	HUMULENE	Seed Essent. Oil				--
2	HUMULENE	Leaf Essent. Oil				--
0	HUMULENE-OXIDE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	HYPOXANTHINE	Shoot				--
0	HYPOXANTHINE	Plant				--
25	IMPERATORIN	Leaf				--
25	IMPERATORIN	Root				--
25	IMPERATORIN	Seed				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	INDOSTEROL	Stem		300.0		--
0	INDOSTEROL	Pt		300.0		--
8	INOSINE	Shoot				--
8	INOSINE	Plant				--
8	INOSITOL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Seed	25.0	571.0	1.9524099785593705	--
6	IRON	Root	3.6	47.0	-0.3733720521591977	ACTA AGRIC SCAND SUPPL 22: 1980
6	IRON	Pt	3.0	347.0	1.289042144893524	--
6	IRON	Fruit	25.0	120.0	-0.051480525146559	--
3	ISOAMYL-ALCOHOL	Shoot				--
3	ISOAMYL-ALCOHOL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ISOBUTYLIDENE	Leaf		32.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ISOBUTYLIDENE-3-A,4-DIHYDROPHthalIDE	Leaf Essent. Oil		40000.0		--
0	ISOBUTYLIDENE-3-A,4-DIHYDROPHthalIDE	Fruit Essent. Oil		17000.0		--
0	ISOBUTYLIDENE-3-A,4-DIHYDROPHthalIDE	Stem Essent. Oil		21000.0		--
0	ISOBUTYLIDENE-3-A,4-DIHYDROPHthalIDE	Seed Essent. Oil		17000.0		--
0	ISOBUTYLIDENE-3-A,4-DIHYDROPHthalIDE	Et		21000.0		--
2	ISOBUTYRIC-ACID	Plant				--
2	ISOBUTYRIC-ACID	Shoot				--
2	ISOBUTYRIC-ACID	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
4	ISOCHLOROGENIC-ACID	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ISOCITRIC-ACID	Root				--
8	ISOIMPERATORIN	Seed				--
3	ISOLEUCINE	Pt	200.0	4290.0		USDA's Ag Handbook 8 and sequelae)
15	ISOPIMPINELLIN	Pt	0.05	0.41		--
15	ISOPIMPINELLIN	Plant				--
15	ISOPIMPINELLIN	Petiole	0.05	0.41		--
15	ISOPIMPINELLIN	Seed				--
15	ISOPIMPINELLIN	Shoot		122.0	1.0	--
15	ISOPIMPINELLIN	Root				--
4	ISOPULEGONE	Seed Essent. Oil		1600.0		--
22	ISOQUERCITRIN	Seed				--
0	ISOVALERIANIC-ALDEHYDE	Plant				--
5	ISOVALERIC-ACID	Seed		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	ISOVALERIC-ACID-ETHYL-ESTER	Shoot				--
1	ISOVALERIC-ACID-ETHYL-ESTER	Plant				--
75	KAEMPFEROL	Leaf		0.0	-0.755027215594713	--
0	KETO-ALCOHOL	Seed	2140.0	3390.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	L-TRYPTOPHAN	Seed				--
7	LAURIC-ACID	Seed	200.0	213.0	-0.5104209587903109	USDA's Ag Handbook 8 and sequelae)
0	LEAD	Root	0.01	2.0	-0.18815782621314692	ACTA AGRIC SCAND SUPPL 22: 1980
2	LEUCINE	Pt	310.0	6530.0		USDA's Ag Handbook 8 and sequelae)
7	LIGUSTILIDE	Seed Essent. Oil		24100.0		--
7	LIGUSTILIDE	Leaf Essent. Oil		2000.0		--
7	LIGUSTILIDE	Essential Oil	2000.0	5000.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	LIGUSTILIDE	Root Essent. Oil		5000.0	-1.0	--
7	LIGUSTILIDE	Stem Essent. Oil		2000.0		--
60	LIMONENE	Stem Essent. Oil		695000.0		--
60	LIMONENE	Leaf Essent. Oil		621000.0	2.0668254322619717	--
60	LIMONENE	Seed Essent. Oil	350000.0	721600.0	2.1440076891973874	--
60	LIMONENE	Essential Oil				--
60	LIMONENE	Seed	530.0	24000.0	0.9558696966291022	--
60	LIMONENE	Et		695000.0	1.0	--
60	LIMONENE	Root Essent. Oil		117000.0	0.2687678089626183	--
60	LIMONENE	Fruit Essent. Oil	350000.0	706000.0	0.5704970731129614	--
0	LINALOL	Seed		1.0	-0.7142013588154137	--
53	LINALOOL	Seed	1.0	90.0	-0.4729972748643267	--
53	LINALOOL	Seed Essent. Oil		14800.0	-0.5026656132656973	--
0	LINALOOL-ACETATE	Shoot				--
7	LINALYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LINASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
27	LINOLEIC-ACID	Leaf	60.0	1132.0	-1.1912413119904384	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Seed	178000.0	46560.0	-0.5189029132357875	--
27	LINOLEIC-ACID	Pt	690.0	12875.0		USDA's Ag Handbook 8 and sequelae)
0	LINOLENIC-ACID	Seed		2000.0	-0.5449471099877773	--
78	LUTEOLIN	Pt	0.0	400.0		--
78	LUTEOLIN	Seed				--
78	LUTEOLIN	Leaf		80.0	-0.5838472995588694	--
0	LUTEOLIN-7-APIOSYL-GLUCOSIDE	Seed				--
0	LUTEOLIN-7-APIOSYL-GLUCOSIDE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LUTEOLIN-7-O-APIOSYL-GLUCOSIDE	Plant				--
5	LUTEOLIN-7-O-BETA-GLUCOSIDE	Plant				--
0	LUTEOLIN-GLUCOSIDE	Seed				--
0	LUTEOLIN-GLYCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
4	LYSINE	Pt	260.0	5410.0		USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Seed	155.0	4903.0	0.7731568198649487	--
65	MAGNESIUM	Root	140.0	1635.0	-0.4930193973019779	ACTA AGRIC SCAND SUPPL 22: 1980
65	MAGNESIUM	Leaf	99.0	2650.0	-0.5698349070295108	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Fruit	153.0	730.0	-0.648159482294604	--
15	MALIC-ACID	Shoot				--
15	MALIC-ACID	Pt				--
15	MALIC-ACID	Root				--
1	MALONIC-ACID	Root				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	MANGANESE	Fruit	1.3	6.3	-0.3619961117886394	--
14	MANGANESE	Seed	1.3	76.0	0.28001116376454066	--
14	MANGANESE	Root	0.74	23.0	-0.27123195934439603	ACTA AGRIC SCAND SUPPL 22: 1980
14	MANGANESE	Pt	1.0	33.0	-1.0	USDA's Ag Handbook 8 and sequelae)
18	MANNITOL	Stem		20000.0		--
18	MANNITOL	Root		50000.0	0.23330584134440507	--
18	MANNITOL	Plant				--
18	MANNITOL	Shoot				--
18	MANNITOL	Leaf				--
0	MANNANOSE-6-PHOSPHATE-REDUCTASE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	MENTHONE	Essential Oil				--
30	MENTHONE	Seed Essent. Oil				--
1	MERCURY	Root	0.0	0.027	-0.41503552911844144	ACTA AGRIC SCAND SUPPL 22: 1980
15	METHIONINE	Pt	50.0	1120.0		USDA's Ag Handbook 8 and sequelae)
1	METHYL-AMINE	Pt		6.4		--
1	METHYL-AMINE	Stem		6.4		--
0	METHYL-BUTYLBENZENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	METHYL-PHENYLKETONE	Seed	55.0	90.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
2	METHYL-PHTHALIDES	Seed				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
2	MOLYBDENUM	Root		0.1	-0.46089530570591497	ACTA AGRIC SCAND SUPPL 22: 1980
3	MUCILAGE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
13	MUFA	Pt	270.0	5035.0		USDA's Ag Handbook 8 and sequelae)
22	MYRCENE	Seed	40.0	1830.0	-0.02492651845909201	--
22	MYRCENE	Et		18000.0	1.0	--
22	MYRCENE	Root Essent. Oil		18000.0	-0.41513379237755443	--
22	MYRCENE	Shoot				--
22	MYRCENE	Leaf Essent. Oil		14000.0	-0.31228842453179745	--
22	MYRCENE	Stem Essent. Oil		18000.0	1.0	--
22	MYRCENE	Fruit Essent. Oil	2000.0	61000.0	0.9225422159382141	--
22	MYRCENE	Seed Essent. Oil	2000.0	61000.0	-0.07142759971351088	--
6	MYRISTIC-ACID	Seed	125.0	213.0	-0.2932148633872675	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	MYRISTIC-ACID	Pt	10.0	190.0		USDA's Ag Handbook 8 and sequelae)
31	MYRISTICIN	Plant				--
31	MYRISTICIN	Seed	230.0	360.0	-0.9910907272077998	--
5	MYRTENAL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
2	MYRTENOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	N-6-BENZYL-ADENINE	Seed				--
0	N-6-BENZYL-ADENINE-RIBOSIDE	Seed				--
0	N-6-ISOPENT-2-ENYL-ADENOSINE	Seed				--
1	N-BUTYLPHTHALIDE	Seed Essent. Oil	25600.0	72000.0		--
1	N-BUTYLPHTHALIDE	Seed	190.0	1800.0		--
1	N-BUTYLPHTHALIDE	Root		30.0		--
1	N-BUTYLPHTHALIDE	Fruit Essent. Oil	50000.0	72000.0		--
0	N-HEXYLCYCLOHEXADIENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	N-METHYL-ANILINE	Pt		7.0		--
0	N-METHYL-ANILINE	Stem		0.5		--
0	N-METHYL-BETA-PHENETHYLAMINE	Stem		0.5		--
0	N-METHYL-PHENETHYLAMINE	Pt		0.5		--
0	N-METHYL-PHENETHYLAMINE	Stem		0.5		--
0	N-PENTYL-AMINE	Pt		0.8		--
0	N-PENTYL-AMINE	Stem		0.8		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	N-PENTYL-BENZENE	Seed	190.0	300.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	N-PENTYL-CYCLOHEXADIENE	Seed	55.0	510.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	N-PENTYL-CYCLOHEXADIENE	Seed Essent. Oil		3000.0		--
0	N-PENTYL-CYCLOHEXADIENE	Leaf Essent. Oil		17000.0		--
0	N-PENTYL-CYCLOHEXADIENE	Fruit Essent. Oil		3000.0		--
0	N-PROPYL-AMINE	Pt		2.7		--
0	N-VALERIC-ACID	Shoot				--
0	NEOCNIDILIDE	Root		17.0		--
0	NEOCNIDILIDE	Plant	70.0	260.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	NEOCNIDOLIDE	Root		17.0		--
4	NERAL	Shoot				--
4	NERAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	NEROL-ACETATE	Shoot				--
5	NERYL-ACETATE	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	NH3	Stem		19600.0		--
0	NH3	Pt		15480.0		--
39	NIACIN	Pt	3.0	57.0	0.7071067811865468	--
39	NIACIN	Seed	2.5	12.0	-0.9245464566376991	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
39	NIACIN	Fruit	3.0	12.0	-0.6510092608917062	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	NICKEL	Root	0.04	0.9	-0.6636456003542591	ACTA AGRIC SCAND SUPPL 22: 1980
21	NICOTINE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	NITROGEN	Root	2000.0	19090.0	-1.1232374468782391	ACTA AGRIC SCAND SUPPL 22: 1980
0	NODAKENETIC	Seed				Chemical Constituents of Oriental Herbs (3 diff. books)
1	NODAKENIN	Seed				--
0	OCTAN-1-AL	Shoot				--
0	OCTANAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
18	OLEIC-ACID	Seed Oil				--
18	OLEIC-ACID	Seed	73200.0	162560.0	0.3572384351765495	--
18	OLEIC-ACID	Pt	230.0	4850.0		USDA's Ag Handbook 8 and sequelae)
0	OSTHENOL	Seed				--
15	OSTHOL	Leaf				--
9	OXALIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
25	P-COUMARIC-ACID	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-COUMAROYL-QUINIC-ACID	Leaf				--
16	P-CYMENE	Root Essent. Oil		31000.0	1.4362919950712267	--
16	P-CYMENE	Fruit Essent. Oil	2000.0	31000.0	1.1182650591230865	--
16	P-CYMENE	Stem Essent. Oil		17000.0	-1.0	--
16	P-CYMENE	Leaf Essent. Oil		4000.0	-0.7192886194278051	--
16	P-CYMENE	Seed Essent. Oil	2000.0	31000.0	-0.0997830422638124	--
16	P-CYMENE	Seed	20.0	930.0	-0.49278287384619057	--
16	P-CYMENE	Et		17000.0	1.0	--
0	P-CYMOL	Leaf Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	P-HYDROXYCINNAMIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	P-MENTH-8(9)-ENE-1,2-DIOL	Seed Essent. Oil				--
0	P-MENTH-8(9)-ENE-1,2-DIOL	Essential Oil				--
0	P-MENTHA-2,8-DIEN-1-OL	Seed Essent. Oil				--
0	P-MENTHA-8(9)-EN-1,2-DIOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-CIS-1(7)-8-DIEN-2-OL	Essential Oil				--
0	P-MENTHA-CIS-2-8-DIEN-1-OL	Essential Oil				--
0	P-MENTHA-TRANS-1(7)-8-DIEN-2-OL	Essential Oil				--
0	P-MENTHA-TRANS-2-8-DIEN-1-OL	Essential Oil				--
5	P-METHOXY-CINNAMIC-ACID	Seed		7.5		--
13	PALMITIC-ACID	Seed	9470.0	32760.0	-0.02365595254605948	--
13	PALMITIC-ACID	Essential Oil				--
13	PALMITIC-ACID	Pt	280.0	5970.0		USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Pt	10.0	190.0		USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Pt	1.0	36.0	0.9999999999999997	USDA's Ag Handbook 8 and sequelae)
24	PECTIN	Leaf		3000.0	-1.5086314748174974	Pakistan Encyclopedia Planta Medica. 1986.
0	PENTENYLBENZENE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	PENTOSANE	Root		1600.0	-1.0	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PENTYL-BENZENE	Seed Essent. Oil	200.0	9000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PENTYL-BENZENE	Seed	170.0	270.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	PENTYL-BENZENE	Leaf Essent. Oil		2000.0		--
0	PENTYL-BENZENE	Fruit Essent. Oil		9000.0		--
11	PERILLALDEHYDE	Seed		1.0	-0.8994543025293285	--
0	PEROXIDASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	PETROSELINIC-ACID	Seed Oil				--
0	PETROSELINIC-ACID	Seed	2400.0	657000.0	0.49703736353975286	--
2	PHELLOPTERIN	Leaf				--
7	PHENYLALANINE	Leaf	190.0	4105.0	-1.592673637880879	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Pt	201.0	6849.0	1.363371911682067	--
4	PHOSPHORUS	Fruit	979.0	4660.0	0.4386018787156484	--
4	PHOSPHORUS	Seed	980.0	6843.0	0.3936525339343855	--
4	PHOSPHORUS	Root	470.0	7900.0	0.7700033948467552	USDA's Ag Handbook 8 and sequelae)
0	PHTHALIDES	Plant				--
2	PHYTOSTEROLS	Seed		600.0	-0.4861647488503628	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	Pt	60.0	1120.0		--
0	PINOCARVEOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	PINOCARVYL-ACETATE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	PINOCARVYL-ACETATE	Plant				--
10	PIPERIDINE	Pt		1.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	PIPERITONE	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
7	PIPERITONE	Seed Essent. Oil				--
7	PIPERITONE	Fruit				--
0	POLYACETYLENES	Root				--
14	POTASSIUM	Seed	1210.0	15330.0	0.24271923351356245	--
14	POTASSIUM	Root	3900.0	56360.0	2.9714959220635757	ACTA AGRIC SCAND SUPPL 22: 1980
14	POTASSIUM	Pt	2689.0	57800.0	0.5197113646473143	--
14	POTASSIUM	Fruit	1210.0	5760.0	-1.0755302557669684	--
0	PROLINE	Leaf	170.0	3208.0	-1.1640243366273353	USDA's Ag Handbook 8 and sequelae)
2	PROPIONALDEHYDE	Leaf	3.0	1050.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	PROPIONALDEHYDE	Shoot				--
0	PROPIONIC-ALDEHYDE	Plant				--
0	PROTEIN	Fruit	35490.0	169000.0	0.7976429450050274	--
0	PROTEIN	Seed	170250.0	203385.0	-0.27052219485106055	USDA's Ag Handbook 8 and sequelae)
0	PROTEIN	Pt	6030.0	194000.0	1.322882538071928	--
0	PROTEIN	Leaf	7000.0	29000.0	-1.824056037172258	--
43	PROTocatechuic-acid	Plant				Pakistan Encyclopedia Planta Medica. 1986.
31	PSORALEN	Pt	0.0	0.15		--
31	PSORALEN	Plant				--
31	PSORALEN	Leaf		0.0	-0.7114864882774733	--
31	PSORALEN	Seed				--
31	PSORALEN	Stem				--
4	PUFA	Pt	690.0	12875.0		USDA's Ag Handbook 8 and sequelae)
1	PYRROLIDINE	Pt		2.6		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PYRROLIDINE	Stem		0.4		--
1	PYRUVIC-ACID	Plant				--
1	PYRUVIC-ACID	Shoot				--
176	QUERCETIN	Pt		0.0		--
0	QUERCETIN-3-O-GALACTOSIDE	Plant				--
0	QUERCETIN-3-O-BETA-GLUCOSIDE	Plant				Stitt, Paul. Why George should eat broccoli.
2	QUERCETIN-3-O-GALACTOSIDE	Plant				Jim Duke's personal files.
1	QUINIC-ACID	Root				--
1	QUINIC-ACID	Pt				--
0	RESINIC-ACID	Seed	16800.0	19600.0	1.0	Wealth of India.
15	RIBOFLAVIN	Fruit	0.1	0.6	-0.9443248460470646	--
15	RIBOFLAVIN	Pt	0.0	34.0	1.3317125985137388	--
15	RIBOFLAVIN	Seed	0.1	0.6	-1.1207183689683347	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	RUBIDIUM	Root	0.24	9.0	-0.5466190454002584	ACTA AGRIC SCAND SUPPL 22: 1980
0	RUTARETIN	Seed		10.0		--
87	RUTIN	Shoot		170.0	-0.5604271785023887	--
87	RUTIN	Plant		170.0	-0.6792061954574901	--
0	S-METHYL-METHIONINE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	S-METHYL-METHIONINE	Stem		96.0		--
5	SABINENE	Seed Essent. Oil		7600.0	-0.46016340929144367	--
5	SABINENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Leaf Essent. Oil				--
7	SALICYLATES	Seed		100.0	0.19635197050159953	--
7	SALICYLATES	Pt		0.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	SANTALOL	Seed	874.0	1150.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	SCOPARONE	Leaf				--
44	SCOPOLETIN	Plant				--
44	SCOPOLETIN	Leaf				--
3	SCOPOLIN	Leaf				--
1	SEDANENOLIDE	Seed	90.0	900.0		--
1	SEDANENOLIDE	Seed Essent. Oil				--
0	SEDANOIC-ACID	Essential Oil				--
0	SEDANOIC-ACID	Seed	100.0	150.0		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	SEDANOIC-ACID	Plant				--
0	SEDANOIC-ALDEHYDE	Plant				--
0	SEDANOIC-ANHYDRIDE	Seed Essent. Oil	79000.0	80000.0		--
0	SEDANOIC-ANHYDRIDE	Essential Oil	30000.0	80000.0		--
0	SEDANOLIC-ACID	Essential Oil				--
3	SEDANOLIDE	Seed Essent. Oil				--
3	SEDANOLIDE	Essential Oil				--
3	SEDANOLIDE	Seed	435.0	900.0		--
0	SEDANOLINE	Plant				--
0	SEDANONIC-ALDEHYDE	Shoot				--
0	SEDANONIC-ANHYDRIDE	Leaf	570.0	15750.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SEDANONIC-ANHYDRIDE	Seed	95.0	150.0		Wealth of India.
0	SEDANONIC-ANHYDRIDE	Seed Essent. Oil	30000.0	80000.0		--
0	SELANOLIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	SELENIUM	Root		0.002	-0.3623106990048751	ACTA AGRIC SCAND SUPPL 22: 1980
60	SELENIUM	Fruit		0.2	-0.3365919582076448	--
60	SELENIUM	Seed		0.2	-0.26179413521870387	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SENKYUNOLIDE	Root	30.0	240.0	1.0	--
1	SENKYUNOLIDE-J	Seed				--
1	SENKYUNOLIDE-N	Seed				--
1	SERINE	Shoot				--
1	SERINE	Pt	200.0	4105.0		USDA's Ag Handbook 8 and sequelae)
0	SESALIN	Seed				--
3	SESELIN	Seed				--
0	SFA	Pt	370.0	6900.0		USDA's Ag Handbook 8 and sequelae)
14	SHIKIMIC-ACID	Root				--
4	SILICON	Fruit	1.0	4.5	-0.5938225414098025	--
4	SILICON	Root		2.0	-0.33371737669722845	ACTA AGRIC SCAND SUPPL 22: 1980
9	SINAPIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
1	SODIUM	Seed	445.0	2120.0	2.6496100162265814	--
1	SODIUM	Pt	774.0	17135.0	1.413860124765121	--
1	SODIUM	Fruit	445.0	2120.0	0.01708643261806833	--
0	SPINOSTEROL	Plant				Pakistan Encyclopedia Planta Medica. 1986.
8	STEARIC-ACID	Pt	30.0	560.0		USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Seed	3100.0	5000.0	-0.456907018776356	USDA's Ag Handbook 8 and sequelae)
12	STIGMASTEROL	Seed		300.0	-0.1490513045808515	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Pt		30.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
7	SUCCINIC-ACID	Root				--
7	SUCCINIC-ACID	Pt				--
0	SUCCINIC-ACID-DEHYDROGENASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
14	SUCROSE	Shoot				--
14	SUCROSE	Plant				--
0	SUGARS	Seed	14700.0	70000.0	0.3785467314953305	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SUGARS	Fruit	14700.0	70000.0	-0.5952549612598248	--
14	SULFUR	Root	100.0	1000.0	-0.5087729499120315	ACTA AGRIC SCAND SUPPL 22: 1980
6	TARTARIC-ACID	Root				--
6	TARTARIC-ACID	Pt				--
23	TERPINEN-4-OL	Seed	1.0	1400.0	0.06885583974834963	--
23	TERPINEN-4-OL	Leaf Essent. Oil		1000.0	-0.5406868834711872	--
0	TERPINENE	Seed Essent. Oil				--
2	TERPINEOL-ACETATE	Shoot				--
0	TERPINEOL-PROPIONATE	Shoot				--
0	TERPINEOLENE	Root Essent. Oil		33000.0		--
9	TERPINOLENE	Fruit Essent. Oil		2000.0	-0.6853536216871218	--
9	TERPINOLENE	Root Essent. Oil		33000.0	-0.6841134180353257	--
9	TERPINOLENE	Seed Essent. Oil		2000.0	-0.6238102957663303	--
9	TERPINOLENE	Leaf Essent. Oil		2000.0	-0.5940205732207128	--
0	TETRAHYDROPHthalide	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
31	THIAMIN	Pt	0.0	10.0	1.2611720796963626	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	THIAMINE	Fruit	0.3	1.2	-1.081392271586632	--
4	THREONINE	Pt	190.0	4105.0		USDA's Ag Handbook 8 and sequelae)
71	THYMOL	Seed Essent. Oil		1700.0	-0.683300111818577	--
71	THYMOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
71	THYMOL	Plant				--
1	TIGLIC-ACID	Plant				--
0	TOLUIDINE	Pt		1.1		--
0	TOLUIDINE	Stem		1.1		--
0	TRANS-1,2-EPOXYLIMONENE	Seed		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	TRANS-2-HEXENOL	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-3-HEXENOL	Essential Oil				--
8	TRANS-ANETHOLE	Plant		1.0	-0.45718340800114365	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-BETA-OCIMENE	Seed Essent. Oil				--
1	TRANS-CARVEOL	Fruit Essent. Oil		1000.0	1.0	--
1	TRANS-CARVEOL	Seed Essent. Oil		1000.0		--
1	TRANS-CARVEOL	Essential Oil				--
0	TRANS-CARVYL-ACETATE	Plant		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-DIHYDROCARVONE	Seed Essent. Oil		14000.0		--
0	TRANS-DIHYDROCARVONE	Fruit Essent. Oil		14000.0		--
0	TRANS-FARNESENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-LIMONENE-OXIDE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-OCIMENE	Leaf				--
0	TRANS-OCIMENE	Et		67000.0		--
0	TRANS-OCIMENE	Root Essent. Oil		201000.0		--
0	TRANS-OCIMENE	Leaf Essent. Oil		20000.0		--
0	TRANS-OCIMENE	Stem Essent. Oil		67000.0		--
0	TRANS-OCIMENE	Fruit Essent. Oil		3000.0		--
0	TRANS-OCIMENE	Seed Essent. Oil		3000.0		--
0	TRANS-P-MENTHA-1(7),8-DIEN-2-OL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-P-MENTHA-2,8-DIEN-1-OL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRIMETHYL-PSORALEN	Plant				--
29	TRYPTOPHAN	Pt	90.0	1865.0		USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Pt	90.0	1865.0		USDA's Ag Handbook 8 and sequelae)
22	UMBELLIFERONE	Seed				--
0	UNDECAN-1-AL	Shoot				--
2	UNDECANAL	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	URANIUM	Root		0.09	-1.0	--
0	URONIC-ACID	Root				--
9	VALERIC-ACID	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	VALINE	Shoot				--
3	VALINE	Pt	260.0	5600.0		USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	VELLEIN	Seed				--
0	VERBENOL	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	VIT-B-6	Leaf	0.0	6.0	-0.8911253731457488	USDA's Ag Handbook 8 and sequelae)
0	VIT-U	Pt	41.0	96.0		--
0	VITAMIN-A-PALMITATE	Seed				--
0	VITAMIN-K-1	Seed				--
0	WATER	Seed	60400.0	790000.0	2.1581361526774154	--
0	WATER	Root		890000.0	0.7903730976697912	ACTA AGRIC SCAND SUPPL 22: 1980
0	WATER	Fruit		790000.0	0.08445851562289378	--
0	WATER	Pt	927000.0	947000.0	1.0	USDA's Ag Handbook 8 and sequelae)
43	XANTHOTOXIN	Shoot		183.0	0.21179380895139957	--
43	XANTHOTOXIN	Pt	0.04	1.6		--
43	XANTHOTOXIN	Plant	6.0	183.0		--
43	XANTHOTOXIN	Seed				--
43	XANTHOTOXIN	Root				--
43	XANTHOTOXIN	Stem				--
0	XANTHOXOTIN	Leaf	0.4	1.0		--
3	XYLOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	Z-BUTYLIDENEPHTHALIDE	Plant				--
2	Z-LIGUSTILIDE	Plant	1.0	5.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	ZEATIN	Seed				--
0	ZEATIN-RIBOSIDE	Seed				--
77	ZINC	Fruit	0.3	1.2	-0.8755455941178387	--
77	ZINC	Seed	0.2	89.0	1.2454197651166274	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Root	2.8	70.0	2.0068925301263634	ACTA AGRIC SCAND SUPPL 22: 1980
77	ZINC	Leaf	1.0	44.0	-0.2567393296527067	USDA's Ag Handbook 8 and sequelae)