

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Salvia officinalis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EPIROSMANOL	Shoot		1.0		--
0	ALPHA-THUJENE	Leaf	0.0	386.0	3.2507273876024785	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	SAFFICINOLIDE	Shoot	35.0	57.0		--
0	TANNINS	Leaf	785.0	10000.0	-1.0854284522770363	--
0	TRANS-SABINOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ROYLEANONE	Root		20300.0		--
0	TRANS-SALVENE	Essential Oil		800.0		--
0	7-O-ACETYL-HORMINONE	Root				--
0	LINALOOL-ACETATE	Leaf Essent. Oil	2000.0	34900.0	1.6339378873531796	--
0	2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE	Leaf	5.0	28.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BORNEOL-ACETATE	Et		26000.0		--
0	CIS-BETA-TERPINEOL	Leaf Essent. Oil		2000.0		--
0	AVENASTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DELTA-TERPINEOL	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	EPIROSMANOL	Resin, Exudate, Sap				--
0	WAX	Plant				--
0	CARBOHYDRATES	Leaf	103620.0	660000.0	0.38292106761842515	--
0	FIBER(DIETARY)	Leaf		289000.0	-1.0282378241946064	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-SABINENE-HYDRATE	Leaf	10.0	56.0	1.6793837527948157	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-SABINENE-HYDRATE	Leaf Essent. Oil		2000.0	-1.0	--
0	ALLO-AROMADENDRENE	Leaf	15.0	84.0	-0.1830077223581628	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	7-METHOXY-ROSMANOL	Shoot		2.0	-1.0	--
0	P-CYMEN-8-OL	Plant				--
0	LINALOOL-ACETATE	Essential Oil	2000.0	216000.0	1.9636083246350857	--
0	CINEOLE	Shoot	500.0	6075.0	1.0	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ALPHA-THUJENE	Essential Oil		1200.0	-0.3928412484180114	--
0	2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE	Leaf	40.0	224.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BORNEOL-ACETATE	Essential Oil	17900.0	59000.0	-0.13264034547163733	--
0	TRANS-SABINOL	Leaf Essent. Oil				--
0	LINOLENIC-ACID	Seed	42000.0	86750.0	0.9345778796061399	--
0	WATER	Leaf		843000.0	0.1764219759131201	--
0	FIBER(CRUDE)	Leaf		196000.0	1.790184111544934	--
0	TRANS-OCIMENE	Plant				--
0	6,7-DIMETHOXY-ROSMANOL	Shoot		2.0		--
0	CINAROSIDE	Shoot				--
0	ALPHA-THUJENE	Leaf Essent. Oil		13800.0	-0.41897395872827414	--
0	2-METHYL-3-METHYLENE-5-HEPTANE	Leaf	50.0	280.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	HYDROXY-ROYLEANONE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PLANTEOSE	Seed				--
0	ASH	Leaf	13659.0	87000.0	-0.5611877153937178	--
0	SALVIGENIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
0	EO	Leaf		20000.0	0.7445770670718886	--
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	ACETO-HYDROXY-ROYLEANONE	Plant				--
0	2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE	Leaf Essent. Oil		1000.0		--
0	CARNOSIC-ACID-METHYL-ESTER	Resin, Exudate, Sap		39000.0		--
0	TRANS-ALLO-OCIMENE	Plant				--
0	ALPHA-TERPINEOL ACETATE	Et		9000.0		--
0	2-AMINO-ADIPIC-ACID	Shoot		1.6		--
0	SPATHULENOL	Leaf Essent. Oil				--
0	SALVIGENIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CALAMENE	Plant	5.0	28.0	1.0	--
0	(-)-THUJONE	Plant	2500.0	13000.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	6-METHOXYLUTEOLIN-7-METHYL-ETHER	Plant				--
0	2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE	Leaf Essent. Oil		8000.0		--
0	CARNOSIC-ACID-METHYL-ESTER	Shoot		45.0		--
0	TRANS-3-HEXENAL	Plant				--
0	2-ALPHA-HYDROXY-3-OXOLEAN-12-EN-28-OIC-ACID	Leaf		17.0		--
0	FAT	Seed		250000.0	-0.08105194719463996	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PICROSALVIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SELIN-11-EN-4-OL	Leaf Essent. Oil		54000.0		--
0	CIS-SALVENE	Essential Oil		3200.0		--
0	SALVIATANNIN	Leaf				--
0	ALPHA-OLEANOLIC-ACID	Plant				--
0	LINALOL	Plant	0.0	3500.0	0.3590366860587444	--
0	RESIN	Plant	50000.0	60000.0	-0.5271561735476993	--
0	BETA-OLEANOLIC-ACID	Plant				--
0	BETA-CARYOPHYLLENE	Et		41000.0		--
0	6-METHOXYLUTEOLIN	Plant				--
0	1,8-CINEOL	Leaf				--
0	GERMANICOL	Plant				--
0	CARNOSIC-ACID-12-METHYL-ETHER	Shoot				--
0	AVENASTEROL	Fruit Essent. Oil				--
0	FAT	Leaf	21666.0	138000.0	1.6247882242706593	--
0	HORMINONE	Root				--
0	APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	SALVIGENIN	Shoot				--
0	2-ALPHA,3-ALPHA-DIHYDROXY-OLEAN-12-EN-28-OIC-ACID	Leaf				--
0	CIS-SABINENE-HYDRATE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-SABINENE-HYDRATE	Leaf Essent. Oil				--
0	LEDENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LUTEOLIN-7-GLYCOSIDE	Root				--
0	PROTEIN	Seed		180000.0	-0.4785438804290316	--
0	BETA-COPAENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BETA-CARYOPHYLLENE	Essential Oil	18900.0	66000.0	-0.22342680293575198	--
0	6-METHOXYGENKWANIN-7-METHYL-ETHER	Plant				--
0	1,8-CINEOL	Et		50000.0		--
0	ROSMANOL-7-ETHYL-ETHER	Shoot		144.0		--
0	LUTEOLIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	O-METHYL-CARNOSIC-ACID	Shoot		17.0		--
0	SALVIANOLIC-ACID-K	Plant		5760.0		--
0	1-OCTEN-3-OL	Plant				--
0	CIS-BETA-TERPINEOL	Leaf	10.0	56.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
0	SACCHAROPINE	Shoot		1.6	-0.7071067811865464	--
0	ALPHA-GURJUNENE	Plant				--
0	ALPHA-COPAENE	Leaf Essent. Oil				--
0	PECTOLINAMARIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	PROTEIN	Leaf	18055.0	115000.0	-0.9661229417649582	--
0	BETA-CARYOPHYLLENE	Leaf	500.0	760.0	0.03728060572503595	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	THUJOL-ACETATE	Essential Oil		1300.0		--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil		11000.0	-0.34048091992384494	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	6-METHOXY-GENKWANIN	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	1,8-CINEOL	Essential Oil	73000.0	217000.0	1.9052102662799937	--
0	NICOTINIC-ACID-AMIDE	Plant		5000.0		--
0	ALLO-AROMADENDRENE	Essential Oil		1800.0	-1.0	--
0	LUTEOLIN-7-O-BETA-D-GLUCOSIDE	Plant				Stitt, Paul. Why George should eat broccoli.
0	OLEAN-12-EN-28-OIC-ACID	Shoot		86.0		--
0	EPIOLEANOLIC-ACID	Leaf		20.0		--
0	SELINA-5,11-DIENE	Plant				--
0	SAGERINIC-ACID	Plant		1300.0		--
0	1,8-CINEOLE-SYNTHEASE	Leaf				--
0	URS-12-EN-28-OIC-ACID	Leaf		14.0		--
0	SABINYL-ACETATE	Plant	110.0	616.0		--
0	VALERANONE	Leaf Essent. Oil				--
0	ALPHA-COROCALENE	Plant				--
0	KILOCALORIES	Leaf		3420.0	0.6478563559445962	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LINOLENIC-ACID	Fruit Essent. Oil				--
0	CIRSIMARITRIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	BETA-BOURBONENE	Leaf Essent. Oil				--
0	5-METHOXYSALVIGENIN	Leaf				--
0	1,8-CINEOL	Leaf Essent. Oil	91000.0	357000.0	1.9399550242552641	--
0	LEDOL	Leaf Essent. Oil		3000.0	-1.0	--
0	PRISTANE	Leaf		56.0		--
0	LUTEOLIN-7-METHYL-ETHER	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EO	Plant	5000.0	28000.0	1.3878217608821395	--
0	GAMMA-CADINENE	Leaf Essent. Oil				--
0	ALPHA-URSOLIC-ACID	Plant				--
0	SAGEQUINONE-METHIDE-A	Shoot		207.0		--
0	BETA-URSOLIC-ACID	Plant				--
0	6-METHOXYLUTEOLIN-7-METHYL-ETHER	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CIRSILION	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	3-EPIOLEANOLIC-ACID	Leaf		1.4		--
0	(-)-THUJONE	Essential Oil				--
0	GAMMA-MAALIENE	Plant				--
0	APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE	Shoot				--
0	POTASSIUM-NITRATE	Plant				--
0	LUTEOLIN-7-GLYCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DIPENTENE-O-DIPHENOLLACTONE	Leaf		3500.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EUGENOL-GLUCOSIDE	Leaf		9.0		--
0	SAPONIN	Plant				--
0	SAGEONE	Shoot	22.0	73.0		--
0	THIAMINE	Leaf	1.3	8.2	0.7312289774690919	--
0	TRICYCLENE	Leaf	15.0	84.0	1.3596086072298736	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRICYCLENE	Leaf Essent. Oil		3000.0	-1.0	--
0	ALPHA-BETA-THUJONE	Essential Oil		347000.0		--
0	ISOBORNEOL-ACETATE	Shoot	168.0	9436.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	LINALOOL-ACETATE	Et		10000.0		--
0	3-CARENE	Plant				--
0	BORNEOL-ACETATE	Leaf Essent. Oil	1000.0	63500.0	-0.028206534857999635	--
0	N-TRIACONTANE	Plant				--
0	GAMMA-CADINENE	Plant	2.0	14.0	-0.45984857009077795	--
0	ISOBORNEOL-ACETATE	Essential Oil		33700.0	1.0	--
0	DELTA-TERPINEOL	Leaf Essent. Oil				--
1	DELTA-CADINOL	Leaf Essent. Oil				--
1	VIRIDIFLOROL	Leaf				--
1	SODIUM	Plant	11.0	12.0	-0.30341378566295807	Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	SODIUM	Leaf	170.0	1080.0	-0.4554694713688264	--
1	CHOLESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	ROSMANOL-9-ETHYL-ETHER	Shoot		144.0		--
1	SERINE	Plant				Stitt, Paul. Why George should eat broccoli.
1	VIRIDIFLOROL	Essential Oil				--
1	LABIATIC-ACID	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	CHOLESTEROL	Fruit Essent. Oil				--
1	ISOCARYOPHYLLENE	Plant				--
1	ROSMADIAL	Resin, Exudate, Sap		6000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	ISOROSMANOL	Shoot		57.0		--
2	CARNOSIC-ACID	Leaf		12400.0	1.5899657743835183	--
2	METHYL-ISOVALERATE	Plant	7.0	42.0		--
2	POMOLIC-ACID	Leaf		3.0	-1.0	--
2	ASPARAGINE	Plant				--
2	CAMPESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	TRANS-PINOCARVEOL	Leaf Essent. Oil				--
2	CAMPESTEROL	Fruit Essent. Oil				--
2	HUMULENE	Essential Oil		17900.0	-1.0	--
2	MANOOL	Shoot	556.0	1478.0		--
2	COBALT	Leaf				--
2	ALPHA-HUMULENE	Et		21000.0		--
2	BETA-MYRCENE	Essential Oil				--
2	HUMULENE	Leaf Essent. Oil				--
2	MANOOL	Essential Oil				--
2	ALPHA-HUMULENE	Essential Oil		19300.0	-0.306582227205239	--
2	ALPHA-HUMULENE	Leaf	110.0	616.0	0.5782902434464878	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	ALPHA-HUMULENE	Leaf Essent. Oil		29000.0	0.25622083823143005	--
2	PHYTOSTEROLS	Leaf		2440.0	0.0028854038801737	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	CARNOSIC-ACID	Resin, Exudate, Sap		57000.0		--
2	CAMPESTEROL	Leaf		120.0	-0.2035509596292973	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
2	CARNOSIC-ACID	Shoot		35.0	-0.666399572485972	--
2	MYRTENOL	Leaf Essent. Oil		2000.0		--
2	3-ISOTHUJONE	Leaf				--
3	SALVIOL	Essential Oil				--
3	SALVIN-MONOMETHYL-ETHER	Leaf				--
3	SALVIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	ALANINE	Plant				Stitt, Paul. Why George should eat broccoli.
3	BETA-PHELLANDRENE	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
3	CYNAROSIDE	Leaf				--
3	BETA-PHELLANDRENE	Leaf	5.0	28.0	-0.39745256523265804	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	AROMADENDRENE	Plant				--
3	GENKWANIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	ALPHA-CEDRENE	Leaf Essent. Oil				--
3	ALPHA-CEDRENE	Plant				Stitt, Paul. Why George should eat broccoli.
3	ALPHA-CADINOL	Leaf Essent. Oil				--
3	CIRSILIOL	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
4	PHELLANDRENE	Essential Oil		20000.0		--
4	TIN	Leaf	1.3	8.0	-0.9124295958448216	--
4	SILICON	Leaf	0.5	3.1	-0.40397146474890056	--
4	PHOSPHORUS	Leaf	201.0	1280.0	-0.6791795625313858	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	BORON	Leaf	25.0	41.0	-0.5517818218876644	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	PHELLANDRENE	Leaf	100.0	560.0	-0.35918289789876834	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	NEPETIN	Plant				--
5	SABINENE	Leaf Essent. Oil		2000.0	-0.6066700271910461	--
5	SABINENE	Essential Oil		1200.0	-0.5875917391877868	--
5	ROSMANOL	Plant				Stitt, Paul. Why George should eat broccoli.
5	GLUTAMINE	Plant				--
5	BETA-THUJONE	Leaf Essent. Oil	174000.0	356000.0		--
5	BETA-THUJONE	Et		151000.0		--
5	BETA-THUJONE	Essential Oil	52300.0	142500.0		--
5	ROSMANOL	Shoot		11.0		--
5	ALUMINUM	Leaf	18.0	115.0	-0.6571553869693828	--
5	ROSMANOL	Resin, Exudate, Sap				--
5	SABINOL	Leaf	85.0	476.0	0.31621378249351945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Leaf	10.0	56.0	-0.22552904691038753	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
5	BETA-THUJONE	Leaf	200.0	9968.0	2.7606909658238585	--
6	BETA-SITOSTEROL-D-GLUCOSIDE	Seed				--
6	ALPHA-THUJONE	Essential Oil	73300.0	408500.0		--
6	IRON	Leaf	2.4	15.0	-0.8825570778618611	--
6	MASLINIC-ACID	Leaf		46.0	-0.8872714302780136	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	UVAOL	Plant				--
6	ALPHA-THUJONE	Leaf Essent. Oil	200000.0	363300.0		--
6	ALPHA-THUJONE	Leaf	200.0	10172.0	2.575761084269138	--
6	ALPHA-THUJONE	Et		206000.0		--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	ISOBORNEOL	Shoot	0.0	784.0	1.1758265637832626	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	ISOBORNEOL	Essential Oil		3800.0		--
7	FUMARIC-ACID	Plant				--
7	ISOBORNEOL	Leaf Essent. Oil		28000.0	-1.0	--
7	HISPIDULIN	Leaf				--
7	CHRYSOERIOL	Plant				Stitt, Paul. Why George should eat broccoli.
7	LINALYL-ACETATE	Plant	0.0	6048.0	2.330313404492723	--
7	CARNOSOLIC-ACID	Leaf		2100.0		--
8	STEARIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
8	STEARIC-ACID	Fruit Essent. Oil				--
8	CARYOPHYLLENE-OXIDE	Plant	55.0	308.0	0.16441757054150238	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	TYROSINE	Plant				Stitt, Paul. Why George should eat broccoli.
8	CARYOPHYLLENE-OXIDE	Essential Oil		13100.0		--
9	CAMPHENE	Et		47000.0		--
9	CAMPHENE	Essential Oil	30200.0	60700.0	1.1306904837156095	--
9	DELTA-CADINENE	Plant	2.0	14.0	-0.4659017963716953	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	CAMPHENE	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
9	DELTA-CADINENE	Leaf Essent. Oil				--
9	OXALIC-ACID	Plant				--
9	TERPINOLENE	Leaf Essent. Oil		2000.0	-0.5940205732207128	--
9	TERPINOLENE	Plant		112.0	0.2506839298132136	--
9	CAMPHENE	Leaf	20.0	18592.0	6.834837822452428	--
9	BETA-AMYRIN	Plant				--
9	BETA-AMYRIN	Leaf		1000.0		--
10	ALPHA-AMYRIN	Leaf		1800.0		--
10	CIRSILINEOL	Plant				Stitt, Paul. Why George should eat broccoli.
10	ALPHA-AMYRIN	Plant				--
11	ALPHA-PHELLANDRENE	Essential Oil				--
11	ALPHA-PHELLANDRENE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
11	GAMMA-TERPINENE	Et		4000.0		--
11	GAMMA-TERPINENE	Leaf Essent. Oil		3000.0	-0.6853547696905973	--
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
11	GAMMA-TERPINENE	Leaf	15.0	140.0	-0.1019870841807531	--
11	PANTOTHENIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
12	STIGMASTEROL	Leaf	5.0	230.0	1.7806618408085848	--
12	STIGMASTEROL	Fruit Essent. Oil				--
12	COPPER	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Plant				Stitt, Paul. Why George should eat broccoli.
12	PINENE	Leaf	420.0	2352.0	-0.35113562909022744	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	BORNYL-ACETATE	Shoot	5.0	1780.0	2.5481701537732313	--
12	PINENE	Essential Oil		84000.0	-1.0	--
13	DIOSMETIN	Plant				Stitt, Paul. Why George should eat broccoli.
13	BETA-PINENE	Et		18000.0		--
13	BETA-PINENE	Leaf Essent. Oil	21000.0	55000.0	1.622889330955553	--
13	PALMITIC-ACID	Fruit Essent. Oil				--
13	ALPHA-TERPINENE	Leaf	10.0	56.0	-0.2834251845983478	--
13	BETA-PINENE	Essential Oil	11300.0	26100.0	-0.15085215632839455	--
13	BETA-PINENE	Plant	20.0	1540.0	1.2273041399455444	--
13	ALPHA-TERPINENE	Et		1000.0		--
13	ALPHA-TERPINENE	Leaf Essent. Oil		2000.0	-0.5761001164044018	--
13	BETULIN	Leaf		15.0	-0.47962706385165327	--
13	ALPHA-TERPINENE	Essential Oil		11200.0	-0.4634179308976379	--
13	PALMITIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
14	POTASSIUM	Leaf	3878.0	24700.0	-0.24922981870565544	--
14	MANGANESE	Leaf	0.5	3.0	-0.4548985090553243	--
14	POTASSIUM	Plant	10700.0	11630.0	-0.7090536999047472	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Leaf		87000.0	-0.9217097607872751	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	RIBOFLAVIN	Leaf	0.6	3.6	-0.16098657500422545	--
15	MALIC-ACID	Plant				--
16	P-CYMENE	Shoot	15.0	495.0	-0.10900236438234769	--
16	P-CYMENE	Et		11000.0	-1.0	--
16	P-CYMENE	Leaf Essent. Oil	7000.0	17700.0	-0.5156620336360256	--
16	P-CYMENE	Essential Oil	3100.0	5400.0	-0.5888102139189108	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
17	THUJONE	Plant	2500.0	13000.0	1.9856348958487122	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
17	THUJONE	Leaf	1453.0	12636.0	1.4138087279087124	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
17	THUJONE	Et		457000.0		--
17	THUJONE	Essential Oil	451300.0	531000.0	1.0	--
17	FARNESOL	Plant				--
18	OLEIC-ACID	Seed		35500.0	-0.6872693677072723	--
18	OLEIC-ACID	Fruit Essent. Oil				--
18	TERPINEOL	Essential Oil				--
18	TERPINEOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
20	CARNOSOL	Resin, Exudate, Sap		36000.0		--
20	CARNOSOL	Shoot		34.0	-0.9354703756918734	--
20	CARNOSOL	Plant				--
20	CARNOSOL	Leaf		1660.0	-0.5296891454855135	--
22	MYRCENE	Essential Oil	3700.0	10400.0	-0.3077036496607786	--
22	MYRCENE	Plant	0.0	336.0	-0.10695418064014987	--
22	MYRCENE	Leaf Essent. Oil	9000.0	15700.0	-0.3056695322092534	--
22	MYRCENE	Et		8000.0	-1.0	--
23	TERPINEN-4-OL	Essential Oil		4500.0	-0.5734207195469667	--
23	ALPHA-TERPINEOL	Leaf	5.0	910.0	1.0071602347564552	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	ALPHA-TERPINEOL	Leaf Essent. Oil		1000.0	-0.8444420280137835	--
23	ALPHA-TERPINEOL	Essential Oil		3700.0	-0.6091856576306849	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Leaf Essent. Oil	2000.0	3000.0	-0.523716551964413	--
23	TERPINEN-4-OL	Leaf	10.0	1120.0	0.29918716656064637	--
24	CHROMIUM	Leaf	0.1	0.3	-0.621193465203015	--
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
24	PECTIN	Shoot				--
25	P-COUMARIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
27	LINOLEIC-ACID	Seed		73000.0	-0.29236236831545726	--
27	LINOLEIC-ACID	Fruit Essent. Oil				--
28	ALPHA-PINENE	Leaf Essent. Oil	35000.0	55000.0	-0.4505855480163243	--
28	ALPHA-PINENE	Essential Oil	11700.0	40100.0	-0.2072109908720455	--
28	CALCIUM	Leaf	1696.0	10800.0	-0.5218305708813075	--
28	ALPHA-PINENE	Plant	7.0	1540.0	0.6083638735756228	--
28	ALPHA-PINENE	Et		35000.0	1.0	--
31	CARYOPHYLLENE	Essential Oil		33000.0	-0.14865660979366116	--
31	CARYOPHYLLENE	Leaf	1.0	1430.0	0.1300669724943753	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	THIAMIN	Leaf	7.0	8.0	-0.06349209547044472	Father Nature's Farmacy: The aggregate of all these three-letter citations.
34	SALICYLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
35	TANNIN	Plant	20000.0	80000.0	-0.053082229266390064	--
35	BORNEOL	Et		79000.0		--
35	BORNEOL	Essential Oil	19700.0	156000.0	0.627691236095563	--
35	BORNEOL	Leaf Essent. Oil	16000.0	250000.0	2.73359024149356	--
35	GERANIOL	Plant				Stitt, Paul. Why George should eat broccoli.
35	BORNEOL	Shoot		7000.0	6.370019299829522	--
39	NIACIN	Leaf	10.0	62.0	-0.4318167758906651	--
41	CAMPHOR	Leaf	0.0	9324.0	-0.03988163889064865	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
41	CAMPHOR	Essential Oil	76000.0	305000.0	0.54343127227621	--
41	CAMPHOR	Leaf Essent. Oil	44000.0	458000.0	2.005169580755753	--
41	CAMPHOR	Pericarp Essent. Oil		229000.0		--
43	CATECHIN	Plant				--
47	BETA-SITOSTEROL	Stem		1214.0	1.0861956164972184	--
47	BETA-SITOSTEROL	Leaf	5.0	2449.0	0.24430946587626218	--
47	BETA-SITOSTEROL	Sprout Seedling				--
47	BETA-SITOSTEROL	Root				--
47	BETA-SITOSTEROL	Fruit Essent. Oil				--
51	ELLAGIC-ACID	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.
53	LINALOOL	Et		11000.0		--
53	LINALOOL	Leaf Essent. Oil	4000.0	46600.0	-0.40077393425160296	--
53	LINALOOL	Essential Oil	1700.0	5000.0	-0.560725569158283	--
53	CITRAL	Plant				Stitt, Paul. Why George should eat broccoli.
53	LINALOOL	Plant	0.0	3500.0	-0.1908197582561713	--
53	BETA-CAROTENE	Leaf	6.0	39.0	-0.9680962342519674	--
57	ROSMARINIC-ACID	Shoot	2000.0	5800.0	-0.5832582116490932	--
57	ROSMARINIC-ACID	Plant	30000.0	50600.0	1.3515537858959146	--
57	ROSMARINIC-ACID	Leaf				--
57	ROSMARINIC-ACID	Inflorescence	30000.0	42000.0	0.25850024578765574	--
57	ROSMARINIC-ACID	Tissue Culture				--
60	LIMONENE	Plant	39.0	2380.0	0.9769131249982739	--
60	LIMONENE	Et		14000.0	-1.0	--
60	LIMONENE	Essential Oil	6600.0	85000.0	-0.2478161403169539	--
60	LIMONENE	Leaf Essent. Oil	10000.0	36400.0	-0.517322999711508	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	SELENIUM	Leaf				--
61	FERULIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
62	GALLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
63	MENTHOL	Plant				--
63	MENTHOL	Leaf				--
64	OLEANOLIC-ACID	Stem		400.0	1.0	--
64	OLEANOLIC-ACID	Leaf	140.0	786.0	-0.36135857674665767	--
65	MAGNESIUM	Leaf	444.0	2830.0	-0.5003307709599559	--
67	1,8-CINEOLE	Plant	390.0	6288.0	1.2033227605211898	--
71	THYMOL	Leaf				--
71	THYMOL	Essential Oil				--
77	ZINC	Leaf	1.0	5.9	-0.4905596892021207	--
77	CHLOROGENIC-ACID	Shoot				--
77	CHLOROGENIC-ACID	Inflorescence				--
78	LUTEOLIN	Shoot				--
78	LUTEOLIN	Leaf				--
89	URSOLIC-ACID	Stem		200.0	-0.8584003823146588	--
89	URSOLIC-ACID	Leaf	1255.0	1300.0	-0.38650833417091646	--
89	URSOLIC-ACID	Root				--
101	APIGENIN	Shoot				--
101	APIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
102	CAFFEIC-ACID	Inflorescence				--
102	CAFFEIC-ACID	Shoot				--
112	ASCORBIC-ACID	Leaf	55.0	350.0	-0.4114445568899699	--