

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for BETA-PHELLANDRENE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anethum graveolens	Leaf	120.0	2100.0	4.5514578733129	--
Artemisia dracunculus	Shoot	100.0	1070.0	4.04416490771926	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Skimmia arborescens	Leaf	325.0	1560.0	3.2616839173212973	--
Mentha pulegium	Plant	3.0	400.0	2.9918668917708637	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Oenanthe aquatica	Fruit	8000.0	20000.0	2.9810127845731307	--
Eucalyptus globulus	Leaf Essent. Oil		36000.0	2.0530780562532986	--
Petroselinum crispum	Seed Essent. Oil		71000.0	1.8705559734598718	--
Piper cubeba	Fruit Essent. Oil	120000.0	130000.0	1.7285017610948525	--
Anethum graveolens	Essential Oil		31600.0	1.724225349934716	--
Petroselinum crispum	Seed	43.0	4970.0	1.6370507088688995	--
Hyssopus officinalis	Leaf	1.0	800.0	1.446446497775597	--
Pimenta racemosa	Leaf	230.0	780.0	1.398677092000093	--
Hyssopus officinalis	Shoot		380.0	1.0304095190337315	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.
Coleus barbatus	Root Essent. Oil		10000.0	1.0	Jim Duke's personal files.
Angelica archangelica	Root	50.0	5320.0	1.0	--
Anethum graveolens	Shoot Essent. Oil	82100.0	169300.0	1.0	--
Murraya koenigii	Leaf	140.0	560.0	0.8732136284479584	--
Hyssopus officinalis	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Petroselinum crispum</i>	Leaf	60.0	530.0	0.8015595197817582	--
<i>Origanum majorana</i>	Plant	27.0	155.0	0.6528644248365976	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lycopus uniflorus</i>	Plant	107.0	154.0	0.643317475991968	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Hyssopus officinalis</i>	Shoot		290.0	0.6373109900747495	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Mentha pulegium</i>	Essential Oil	800.0	20000.0	0.6280219486295257	--
<i>Myristica fragrans</i>	Essential Oil		20000.0	0.6280219486295257	--
<i>Hyssopus officinalis</i>	Shoot		280.0	0.5936333757459736	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Eucalyptus lansdowneana</i>	Leaf		430.0	0.5627124908944243	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Symphomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Cistus ladaniferus</i>	Plant	2.0	140.0	0.5096601921671527	--
<i>Satureja obovata</i>	Leaf		360.0	0.3955195706732905	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
<i>Myristica fragrans</i>	Seed Essent. Oil		34000.0	0.31642638473198437	--
<i>Elettaria cardamomum</i>	Seed Essent. Oil		32500.0	0.2534211311349079	--
<i>Satureja obovata</i>	Leaf		300.0	0.2522113533408902	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyssopus officinalis	Shoot		190.0	0.20053484678699166	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Pinus sylvestris	Leaf Essent. Oil		13000.0	0.1553903686246635	--
Daucus carota	Shoot		177.0	0.14375394815958314	--
Eucalyptus citriodora	Leaf Essent. Oil		12000.0	0.07288220829298371	--
Origanum majorana	Essential Oil		14000.0	0.06102018933373759	--
Anethum graveolens	Seed	25.0	1925.0	-0.06920272549899337	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Apium graveolens	Fruit		2000.0	-0.1272127645580522	--
Anethum graveolens	Fruit	168.0	1925.0	-0.1401637043460988	--
Satureja obovata	Leaf		110.0	-0.2015980015450442	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
Satureja obovata	Leaf		110.0	-0.2015980015450442	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
Eucalyptus tetraptera	Leaf		100.0	-0.2254827044337776	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part I. Subgenus <i>Symphomyrtus</i> , Section <i>Dumaria</i> , Series <i>Incrassatae</i> . Flavour and Fragrance J. 9(3):113-7
Eucalyptus sparsa	Leaf		100.0	-0.2254827044337776	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Symphomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus forrestiana	Leaf		95.0	-0.2374250558781443	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J.9(3):113-7
Origanum vulgare	Plant		60.0	-0.2540957154032198	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
Origanum vulgare	Plant	12.0	60.0	-0.2540957154032198	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Eucalyptus ceratocorys	Leaf		80.0	-0.2732521102112444	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J.9(3):113-7
Melaleuca alternifolia	Leaf		75.0	-0.2851944616556111	--
Foeniculum vulgare	Fruit	170.0	1020.0	-0.2964383777885277	--
Illicium verum	Fruit	220.0	835.0	-0.32838402926570937	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Coriandrum sativum	Seed Essent. Oil	400.0	18600.0	-0.3304275521980012	--
Teucrium cyprium	Leaf		50.0	-0.34490621887744455	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Juniperus communis	Fruit	66.0	660.0	-0.3586028887711514	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hyssopus officinalis	Shoot		60.0	-0.3672741394870935	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum syriacum	Shoot		60.0	-0.3672741394870935	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot		60.0	-0.3672741394870935	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Lindera benzoin	Fruit	400.0	545.0	-0.37846099644615616	--
Valeriana officinalis	Leaf		35.0	-0.3807332732105446	Father Nature's Farmacy: The aggregate of all these three-letter citations.
Abies alba	Plant	32.0	46.0	-0.387752999228035	--
Salvia officinalis	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.
Hyssopus officinalis	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus officinalis L.) J. Agric. Food Chem. 42: 776-781.
Micromeria teneriffae	Leaf		20.0	-0.41656032754364475	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Teucrium kotschyannum	Leaf		18.0	-0.4213372681213914	Arnold, N., Bellomaria, B., Velentini G. and Razaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Cuminum cyminum	Fruit	90.0	279.0	-0.4243936628944281	--
Eucalyptus desquamata	Leaf	0.0	15.0	-0.4285026789880114	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus incrassata	Leaf		14.0	-0.43089114927688477	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Eucalyptus stoatei	Leaf		13.0	-0.4332796195657581	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Teucrium divaricatum	Leaf		12.0	-0.43566808985463146	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Eucalyptus leucoxydon	Leaf		10.0	-0.4404450304323781	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus porosa	Leaf		10.0	-0.4404450304323781	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Umbellularia californica	Plant	10.0	40.0	-0.44503469229581294	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus erythrandra	Leaf		7.0	-0.44761044129899813	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Eucalyptus cuprea	Leaf		6.4	-0.4490435234723222	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus dolichorhyncha	Leaf		6.0	-0.4499989115878715	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Eucalyptus intertexta	Leaf		5.5	-0.45119314673230815	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus largisparsa	Leaf		4.6	-0.4533427699922941	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus odorata	Leaf		4.4	-0.4538204640500689	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Citrus aurantiifolia	Fruit		90.0	-0.45703003116030555	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Eucalyptus behriana	Leaf		2.7	-0.45788086354115354	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus populnea	Leaf		1.8	-0.46003048680113945	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus angulosa	Leaf		1.5	-0.4607470278878015	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Vitex agnus-castus	Leaf		1.4	-0.4609858749166889	Ekundayo, O., Laakso, I., Holopainen, M., Hiltunen, R., Oguntimein, B., and Kauppinen, V. 1990. The Chemical Composition and Antimicrobial Activity of the Leaf Oil of Vitex agnus-castus L. J. Essential Oil Research, 2: 115-119.



Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus fasciculosa	Leaf	0.0	1.3	-0.4612247219455761	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus melanophloia	Leaf	0.0	0.8	-0.4624189570900128	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus ochrophloia	Leaf		0.5	-0.4631354981766748	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus viridis	Leaf	0.0	0.5	-0.4631354981766748	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Origanum onites	Shoot		38.0	-0.4633648910104002	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Teucrium micropodioides	Leaf		0.0	-0.4643297333211115	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Sassafras albidum	Leaf		0.0	-0.4643297333211115	--
Coriandrum sativum	Fruit	1.0	13.0	-0.4703263293427	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Piper nigrum	Fruit Essent. Oil		41000.0	-0.47230877878271366	--
Thymus riatarum	Shoot		35.0	-0.4764681753090329	Iglesias, J., Vila, R., Canigual, S., Bellakdhar, and I Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riatarum. J. Ess. Oil Res. 3: 43-4.
Hedeoma drummondii	Plant	9.0	31.0	-0.5309572318974799	--
Ocimum gratissimum	Plant	5.0	30.0	-0.5405041807421095	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Trichostemma dichotomum	Shoot		18.0	-0.5507201196679516	Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.
Micromeria varia	Shoot		15.0	-0.5638234039665844	Pedro, L.G., et al. 1995. Composition of the Essential oil of Micromeria varia Benth. ssp. thymoides (Sol. ex Lowe) Perez var. thymoides, and endemic species of the Madeira Archipelago. flav. & Fragr. J. 10(3): 199-202.
Micromeria varia	Shoot		15.0	-0.5638234039665844	--
Foeniculum vulgare	Seed	170.0	1020.0	-0.5763158151879731	--
Pelargonium citrosum	Shoot		4.0	-0.6118687797282377	Matsuda, B. M., et al. 1996. Essential Oil Analysis and Field Evaluation of the Citrosa Plant 'Pelargonium citrosum' as a Repellent Against Populations of Aedes Mosquitoes. J. Am. Mosq. Contr. Assoc. 12(1):69-74.
Thymus longicaulis	Shoot		3.0	-0.6162365411611153	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus longicaulis	Shoot		3.0	-0.6162365411611153	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Petroselinum crispum	Fruit Essent. Oil		35100.0	-0.618205207830777	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hyssopus officinalis</i>	Shoot		0.1	-0.6289030493164603	Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. <i>J. Ess. Oil Res.</i> 5: 609-611.
<i>Thymus capitatus</i>	Shoot		0.0	-0.629339825459748	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. &amp; Frag. J.</i> 8: 331-7.
<i>Thymus longicaulis</i>	Shoot		0.0	-0.629339825459748	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
<i>Eucalyptus globulus</i>	Fruit Essent. Oil		34300.0	-0.6379877744813619	--
<i>Citrus limon</i>	Leaf Essent. Oil		3300.0	-0.6449387865926303	Jim Duke's personal files.
<i>Melaleuca alternifolia</i>	Essential Oil		5800.0	-0.713882215037173	--
<i>Origanum vulgare</i>	Plant		5.0	-0.7791779018578511	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
<i>Origanum vulgare</i>	Plant		4.0	-0.7887248507024808	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
<i>Valeriana officinalis</i>	Leaf Essent. Oil		1400.0	-0.8017042912228218	--
<i>Origanum vulgare</i>	Plant		1.0	-0.8173656972363698	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
<i>Salvia officinalis</i>	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
<i>Cuminum cyminum</i>	Seed	90.0	279.0	-0.9915321681819333	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
<i>Origanum vulgare</i>	Shoot Essent. Oil		800.0	-1.0	--
<i>Melaleuca alternifolia</i>	Root Essent. Oil		6300.0	-1.0	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Levisticum officinale	Root	24.0	240.0	-1.0	--
Apium graveolens	Seed Essent. Oil	200.0	2000.0	-1.027685692005648	--
Canarium indicum	Essential Oil	800.0	2000.0	-1.0729833292578388	--
Cuminum cyminum	Seed Essent. Oil		700.0	-1.0822902451231144	--
Citrus limon	Essential Oil		80.0	-1.254423892232491	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Boswellia sacra	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Gossypium sp	Plant				--
Hyssopus officinalis	Essential Oil				--
Tagetes minuta	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper auritum	Leaf				Tramil
Mentha arvensis var. piperascens	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Trachyspermum ammi	Plant				--
Cinnamomum verum	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hyssopus officinalis	Shoot				Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two Hyssopus officinalis cultivars. J. Ess. Oil Res. 5: 609-611.
Angelica archangelica	Fruit				--
Angelica archangelica	Root Essent. Oil				--
Pelargonium graveolens	Essential Oil				--
Hyssopus officinalis	Flower	34.0	348.0		Flavour and Fragrance Journal, 6: 69.
Rosmarinus officinalis	Plant				--
Pinus sylvestris	Resin, Exudate, Sap				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Agathosma betulina	Leaf Essent. Oil				--
Lavandula angustifolia	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Carum carvi	Seed				Wealth of India.
Eucalyptus globulus	Essential Oil				--
Thymus vulgaris	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Thymus vulgaris	Essential Oil				--
Pimenta dioica	Plant				--
Schinus molle	Fruit				--
Valeriana officinalis	Root				--
Boswellia serrata	Essential Oil				--
Pastinaca sativa	Root				--
Citrus limon	Pericarp Essent. Oil		65900.0		Jim Duke's personal files.
Allium sativum var. sativum	Bulb				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.
Thymus capitatus	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Petiole		8.0		--
Ribes nigrum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ribes nigrum	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper cubeba	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Juniperus communis	Leaf Essent. Oil				--
Juniperus communis	Essential Oil				--
Juniperus communis	Fruit Essent. Oil				--
Pimenta dioica	Fruit				--
Abies balsamea	Gum				--
Citrus paradisi	Pericarp				--
Satureja hortensis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Anethum graveolens	Root				--
Zingiber officinale	Rhizome	32.0	2850.0		--
Carica papaya	Fruit				--
Laurus nobilis	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pinus mugo	Leaf				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Anethum graveolens	Root Essent. Oil				--
Anethum graveolens	Seed Essent. Oil				--
Myrciaria dubia	Fruit				--
Pinus sylvestris	Essential Oil				--
Pinus sylvestris	Flower				--
Pinus sylvestris	Twig				--
Piper nigrum	Seed Essent. Oil				--
Sassafras albidum	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ribes nigrum	Bud				--
Pinus palustris	Resin, Exudate, Sap				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coriandrum sativum	Essential Oil				--
Zingiber officinale	Rhizome Essent. Oil	57000.0	106700.0		--
Tagetes minuta	Shoot Essent. Oil				--
Tagetes minuta	Leaf Essent. Oil				Zygadlo, J. S., Guzman, C. A., Grosso, N. R. 1994. Antifungal Properties of the Leaf Oils of Tagetes Minuta L. and T. filifolia Lag. J. Essent. Oil Res. 6 6: 617-621. Cat Quim Org Fac Cien Exact Univ Nacion Cordoba Cordoba 5000 Argentina.
Rosmarinus officinalis	Leaf Essent. Oil				--