

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for BETA-PHELLANDRENE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Abies balsamea	Gum				--
Abies alba	Plant	32.0	46.0	-0.387752999228035	--
Agathosma betulina	Leaf Essent. Oil				--
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.
Anethum graveolens	Shoot Essent. Oil	82100.0	169300.0	1.0	--
Anethum graveolens	Leaf	120.0	2100.0	4.5514578733129	--
Anethum graveolens	Root				--
Anethum graveolens	Seed Essent. Oil				--
Anethum graveolens	Essential Oil		31600.0	1.724225349934716	--
Anethum graveolens	Fruit	168.0	1925.0	-0.1401637043460988	--
Anethum graveolens	Root Essent. Oil				--
Anethum graveolens	Seed	25.0	1925.0	-0.06920272549899337	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Angelica archangelica	Root Essent. Oil				--
Angelica archangelica	Root	50.0	5320.0	1.0	--
Angelica archangelica	Fruit				--
Apium graveolens	Seed Essent. Oil	200.0	2000.0	-1.027685692005648	--
Apium graveolens	Fruit		2000.0	-0.1272127645580522	--
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.
Boswellia sacra	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Boswellia serrata	Essential Oil				--
Canarium indicum	Essential Oil	800.0	2000.0	-1.0729833292578388	--
Carica papaya	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Carum carvi	Seed				Wealth of India.
Cinnamomum verum	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cistus ladaniferus	Plant	2.0	140.0	0.5096601921671527	--
Citrus paradisi	Pericarp				--
Citrus aurantiifolia	Fruit		90.0	-0.45703003116030555	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Petiole		8.0		--
Citrus limon	Leaf Essent. Oil		3300.0	-0.6449387865926303	Jim Duke's personal files.
Citrus limon	Pericarp Essent. Oil		65900.0		Jim Duke's personal files.
Citrus limon	Essential Oil		80.0	-1.254423892232491	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Coleus barbatus	Root Essent. Oil		10000.0	1.0	Jim Duke's personal files.
Coriandrum sativum	Essential Oil				--
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.
Coriandrum sativum	Seed Essent. Oil	400.0	18600.0	-0.3304275521980012	--
Cuminum cyminum	Fruit	90.0	279.0	-0.4243936628944281	--
Cuminum cyminum	Seed Essent. Oil		700.0	-1.0822902451231144	--
Cuminum cyminum	Seed	90.0	279.0	-0.9915321681819333	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Daucus carota	Shoot		177.0	0.14375394815958314	--
Elettaria cardamomum	Seed Essent. Oil		32500.0	0.2534211311349079	--
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

Plant	Part	Low PPM	High PPM	StdDev	Reference
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 Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
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
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
Eucalyptus lansdowneana	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 Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
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

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 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 Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus globulus	Fruit Essent. Oil		34300.0	-0.6379877744813619	--
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
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
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

Plant	Part	Low PPM	High PPM	StdDev	Reference
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 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 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 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 globulus	Leaf Essent. Oil		36000.0	2.0530780562532986	--
Eucalyptus citriodora	Leaf Essent. Oil		12000.0	0.07288220829298371	--
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

Plant	Part	Low PPM	High PPM	StdDev	Reference
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
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
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 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
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

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus leucoxylon	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 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
Eucalyptus globulus	Essential Oil				--
Foeniculum vulgare	Fruit	170.0	1020.0	-0.2964383777885277	--
Foeniculum vulgare	Seed	170.0	1020.0	-0.5763158151879731	--
Gossypium sp	Plant				--
Hedeoma drummondii	Plant	9.0	31.0	-0.5309572318974799	--
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		290.0	0.6373109900747495	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		280.0	0.5936333757459736	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	Essential Oil				--
Hyssopus officinalis	Leaf	1.0	800.0	1.446446497775597	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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 (<i>Hyssopus officinalis</i> 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 (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
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.
Hyssopus officinalis	Flower	34.0	348.0		Flavour and Fragrance Journal, 6: 69.
Hyssopus officinalis	Shoot				Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. J. Ess. Oil Res. 5: 609-611.
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 (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
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 (<i>Hyssopus officinalis</i> 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 (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	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. J. Ess. Oil Res. 5: 609-611.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Illicium verum</i>	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.
<i>Juniperus communis</i>	Fruit Essent. Oil				--
<i>Juniperus communis</i>	Fruit	66.0	660.0	-0.3586028887711514	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Juniperus communis</i>	Essential Oil				--
<i>Juniperus communis</i>	Leaf Essent. Oil				--
<i>Laurus nobilis</i>	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula angustifolia</i>	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Levisticum officinale</i>	Root	24.0	240.0	-1.0	--
<i>Lindera benzoin</i>	Fruit	400.0	545.0	-0.37846099644615616	--
<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>Melaleuca alternifolia</i>	Essential Oil		5800.0	-0.713882215037173	--
<i>Melaleuca alternifolia</i>	Root Essent. Oil		6300.0	-1.0	--
<i>Melaleuca alternifolia</i>	Leaf		75.0	-0.2851944616556111	--
<i>Mentha pulegium</i>	Essential Oil	800.0	20000.0	0.6280219486295257	--
<i>Mentha pulegium</i>	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.
<i>Mentha arvensis</i> var. <i>piperascens</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6. Springer-Verlag, Berlin, 1969-1979.
<i>Micromeria teneriffae</i>	Leaf		20.0	-0.41656032754364475	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Micromeria varia</i>	Shoot		15.0	-0.5638234039665844	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria varia	Shoot		15.0	-0.5638234039665844	Pedro, L.G., et al. 1995. Composition of the Essential oil of <i>Micromeria varia</i> Benth. ssp. <i>thymoides</i> (Sol. ex Lowe) Perez var. <i>thymoides</i> , and endemic species of the Madeira Archipelago. <i>flav. & Fragr. J.</i> 10(3): 199-202.
Murraya koenigii	Leaf	140.0	560.0	0.8732136284479584	--
Myrciaria dubia	Fruit				--
Myristica fragrans	Essential Oil		20000.0	0.6280219486295257	--
Myristica fragrans	Seed Essent. Oil		34000.0	0.31642638473198437	--
Ocimum gratissimum	Plant	5.0	30.0	-0.5405041807421095	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
Oenanthe aquatica	Fruit	8000.0	20000.0	2.9810127845731307	--
Origanum vulgare	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.
Origanum vulgare	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.
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. <i>Flav. & Frag. J.</i> 8: 331-7.
Origanum vulgare	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.
Origanum syriacum	Shoot		60.0	-0.3672741394870935	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. <i>Essential Oil. J. Ess. Oil Res.</i> 3: 121-123.
Origanum vulgare	Shoot Essent. Oil		800.0	-1.0	--
Origanum majorana	Essential Oil		14000.0	0.06102018933373759	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum majorana	Plant	27.0	155.0	0.6528644248365976	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Plant	12.0	60.0	-0.2540957154032198	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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 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.
Pastinaca sativa	Root				--
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.
Pelargonium graveolens	Essential Oil				--
Petroselinum crispum	Seed	43.0	4970.0	1.6370507088688995	--
Petroselinum crispum	Fruit Essent. Oil		35100.0	-0.618205207830777	--
Petroselinum crispum	Leaf	60.0	530.0	0.8015595197817582	--
Petroselinum crispum	Seed Essent. Oil		71000.0	1.8705559734598718	--
Pimenta racemosa	Leaf	230.0	780.0	1.398677092000093	--
Pimenta dioica	Plant				--
Pimenta dioica	Fruit				--
Pinus mugo	Leaf				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Pinus sylvestris	Twig				--
Pinus sylvestris	Leaf Essent. Oil		13000.0	0.1553903686246635	--
Pinus sylvestris	Resin, Exudate, Sap				--
Pinus sylvestris	Flower				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
Pinus sylvestris	Essential Oil				--
Piper cubeba	Fruit Essent. Oil	120000.0	130000.0	1.7285017610948525	--
Piper nigrum	Fruit Essent. Oil		41000.0	-0.47230877878271366	--
Piper auritum	Leaf				Tramil
Piper nigrum	Seed Essent. Oil				--
Piper cubeba	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ribes nigrum	Bud				--
Ribes nigrum	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ribes nigrum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rosmarinus officinalis	Leaf Essent. Oil				--
Rosmarinus officinalis	Plant				--
Salvia officinalis	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
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.
Sassafras albidum	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Sassafras albidum	Leaf		0.0	-0.4643297333211115	--
Satureja obovata	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 Satureja obovata. Phytochemistry 35(1): 83.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Satureja obovata	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 Satureja obovata. Phytochemistry 35(1): 83.
Satureja hortensis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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 Satureja obovata. 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 Satureja obovata. Phytochemistry 35(1): 83.
Schinus molle	Fruit				--
Skimmia arborescens	Leaf	325.0	1560.0	3.2616839173212973	--
Tagetes minuta	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Tagetes minuta	Shoot Essent. Oil				--
Tagetes minuta	Leaf Essent. Oil				Zygodlo, 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.
Teucrium kotschyianum	Leaf		18.0	-0.4213372681213914	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.
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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
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.
Thymus vulgaris	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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 capitatus	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. Flav. & Frag. J. 8: 331-7.
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 raiatarum	Shoot		35.0	-0.4764681753090329	Iglesias, J., Vila, R., Canigual, S., Bellakdhar, and Il Idrissi, A. 1991. Analysis of the Essential Oil of Thymus raiatarum. J. Ess. Oil Res. 3: 43-4.
Thymus capitatus	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus vulgaris	Essential Oil				--
Thymus longicaulis	Shoot		0.0	-0.629339825459748	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Trachyspermum ammi	Plant				--
Trichostemma dichotomum	Shoot		18.0	-0.5507201196679516	Tucker, A.O. and Maciarelo, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.
Umbellularia californica	Plant	10.0	40.0	-0.44503469229581294	--
Valeriana officinalis	Leaf		35.0	-0.3807332732105446	Father Nature's Farmacy: The aggregate of all these three-letter citations.
Valeriana officinalis	Leaf Essent. Oil		1400.0	-0.8017042912228218	--
Valeriana officinalis	Root				--
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.
Zingiber officinale	Rhizome	32.0	2850.0		--
Zingiber officinale	Rhizome Essent. Oil	57000.0	106700.0		--