

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**List of Plants for TERPINEN-4-OL**

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Achillea millefolium	Leaf	3	430	-0.24039913557404782	--
Acinos alpinus	Shoot	3	3	-0.1659368758696505	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acinos suaveolens	Shoot	1400	1400	0.41314255165211494	Jim Duke's personal files.
Acorus calamus	Rhizome	10	500		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Agathosma betulina	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Aloysia citrodora	Plant	3	21	-0.272339846599895	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Alpinia galanga	Plant	--	--		Abstract (See species file)
Alpinia galanga	Rhizome	--	--		--
Alpinia officinarum	Rhizome	--	--		Wealth of India.
Ammi visnaga	Essential Oil	--	--		--
Amomum compactum	Seed	--	--		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
Anethum graveolens	Fruit	12	77	-0.3466854896821412	--
Anethum graveolens	Seed	0.1	77	-0.6507040021716104	--
Anethum graveolens	Leaf	5	15	-0.33175766291960446	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anethum graveolens	Essential Oil	--	--		--
Angelica archangelica	Root	0	10	-0.5731321285364237	--
Angelica archangelica	Root Essent. Oil	--	--		--
Apium graveolens	Leaf Essent. Oil	--	1000	-0.5406868834711872	--
Apium graveolens	Seed	1	1400	0.06885583974834963	--
Aralia cordata	Root	6	6	-1.055769710461833	--
Artemisia annua	Plant	15	1135	0.21296450672015324	--
Artemisia pallens	Plant	--	--		--
Artemisia salsoloides	Shoot	--	24500	9.988471668153748	V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Aremisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305.
Boswellia sacra	Essential Oil	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Boswellia sacra	Resin Essent. Oil	--	2000		Abdel Wahab, S. M., Aboutabl, E. A., El-Zalabani, S. M., Fouad, H. A., De Pooter, H. L., El-Fallaha, B. 1987. The Essential Oil of Olibanum. Plant Med. 53 (4): 382-384.
Boswellia serrata	Essential Oil	--	--		--
Brassica oleracea var. capitata l.	Shoot	--	22	-0.15806106404222492	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Calamintha nepeta	Shoot	105	105	-0.12365620184873419	Kirimer, N., Baser, K.H.C., Ozek, T. and Kurkcuoglo, M. 1992. Composition of the Essential Oil of Calamintha nepeta subsp. glandulosa. J. Ess. Oil Res. 4:189-190
Capsicum annum	Fruit	--	--		--
Capsicum frutescens	Fruit	--	--		--
Carthamus tinctorius	Flower	0.01	0.1	-1.2822283694095995	--
Carum carvi	Plant	120	985	0.14761831910973383	--
Chrysanthemum parthenium	Shoot	--	4	-0.16552235945768073	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
Cinnamomum aromaticum	Plant	--	--		--
Cinnamomum camphora	Leaf	135	270	-0.18615500996262355	--
Cinnamomum verum	Bark	36	144		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cinnamomum verum	Leaf	580	1160	0.3220267983970355	--
Cinnamomum verum	Root Bark	--	--		--
Cinnamomum verum	Bark Essent. Oil	--	4000		--
Cistus ladaniferus	Leaf	1	70	-0.3003531691445694	--
Citrus aurantiifolia	Fruit	166	166	-0.33320430132175255	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus aurantium	Leaf	50	80	-0.29464326118547207	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus limon	Pericarp Essent. Oil	1000	11000		Jim Duke's personal files.
Citrus limon	Leaf Essent. Oil	29600	31000	-0.2861319108695746	Jim Duke's personal files.
Citrus limon	Essential Oil	1	40	-0.6167580897613645	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Petiole	--	22		--
Citrus mitis	Fruit Juice	0.2	0.2		--
Citrus paradisi	Leaf	--	305	-0.1661703321057829	--
Citrus paradisi	Pericarp	--	3		--
Citrus reticulata	Fruit	--	0.1	-0.358333842321623	--
Citrus reticulata	Leaf Essent. Oil	--	71300	0.05582026899192498	--
Citrus sinensis	Fruit	--	0.1	-0.358333842321623	--
Cleonia lusitanica	Leaf	2	3	-0.3386095524705212	Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of Cleonia lusitanica. J. Ess. Oil Res., 3: 441-442.
Coleus barbatus	Leaf Essent. Oil	--	2900	-0.5245650685397517	Jim Duke's personal files.
Coleus barbatus	Stem Essent. Oil	--	2900		Jim Duke's personal files.
Coriandrum sativum	Fruit	6	80	-0.34623106760257755	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coriandrum sativum	Seed Essent. Oil	--	13800	-0.5326666411126562	--
Coriandrum sativum	Essential Oil	--	--		--
Crocus sativus	Silk Stigma Style	--	265000		--
Croton eluteria	Bark	--	--		--
Croton lechleri	Plant	--	--		Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Cuminum cyminum	Fruit	--	30	-0.35380476892863855	--
Cuminum cyminum	Seed	30	30	-0.6762665967069378	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cuminum cyminum	Seed Essent. Oil	--	1000	-0.656858499149851	--
Cymbopogon nardus	Plant	21	84	-0.24489444780351885	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Daucus carota	Root	28	28	1.5987369901279187	--
Dictamnus albus	Shoot	43	43	-0.1493562193908598	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2
Dictamnus albus	Shoot	--	3	-0.1659368758696505	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2
Dictamnus albus	Shoot	--	43	-0.1493562193908598	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2
Elettaria cardamomum	Fruit	252	23200	3.155848425568043	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Elettaria cardamomum	Fruit Essent. Oil	--	27000	1.4135559855648545	--
Elettaria cardamomum	Seed Essent. Oil	--	13000	-0.5404286322399808	--
Elsholtzia pilosa	Shoot	6	6	-0.1646933266337412	--
Elsholtzia polystachya	Leaf	2.6	2.6	-0.3388379487888852	Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379.
Elsholtzia polystachya	Leaf	--	2.6	-0.3388379487888852	Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379.
Ephedra sinica	Essential Oil	--	--		Jim Duke's personal files.
Ephedra sinica	Stem	--	--		Jim Duke's personal files.
Ephedra sinica	Shoot	--	39	-0.15101428503873887	--
Eucalyptus albens	Shoot	--	18	-0.159719129690104	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus astringens	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus behriana	Leaf	2.7	2.7	-0.3387808497092941	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
<i>Eucalyptus blakelyi</i>	Shoot	--	60	-0.14230944038737373	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus bosistoana</i>	Shoot	--	75	-0.1360916942078272	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus botryoides</i>	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus brassiana</i>	Leaf	--	35	-0.3203378470014099	Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Chemical Constituents of the Leaf Essential Oil of <i>Eucalyptus brassiana</i> S. T. Blake. Journal of Essential Oil Res. 3: 45-7.
<i>Eucalyptus bridgesiana</i>	Leaf	--	2.7	-0.3387808497092941	Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Volatile Constituents of the Essential Oil of <i>Eucalyptus bridgesiana</i> Growing in India. Journal of Essential Oil Res. 3: 449-450.
<i>Eucalyptus camaldulensis</i>	Shoot	--	200	-0.08427714271160626	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus citriodora</i>	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus citriodora</i>	Leaf Essent. Oil	--	1000	-0.5406868834711872	--
<i>Eucalyptus cladocalyx</i>	Shoot	--	36	-0.15225783427464817	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus cuprea	Leaf	6.4	6.4	-0.3366681837644281	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 dealbata	Shoot	--	115	-0.11951103772903651	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus desquamata	Leaf	0	15	-0.33175766291960446	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 diversicolor	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus fasciculosa	Leaf	0	1.3	-0.3395802368235678	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	Shoot	--	3000	1.0763688108037435	--
Eucalyptus globulus	Fruit Essent. Oil	--	--		--
Eucalyptus globulus	Leaf Essent. Oil	--	8000	-0.48129072319747757	--
Eucalyptus intertexta	Leaf	35	35	-0.3203378470014099	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
<i>Eucalyptus lansdowneana</i>	Leaf	110	110	-0.2775135373081802	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>Symphyomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Eucalyptus largisparsa</i>	Leaf	300	300	-0.16902528608533154	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>Symphyomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Eucalyptus leucoxylon</i>	Leaf	0	5.5	-0.3371820754807469	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>Symphyomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Eucalyptus maculata</i>	Shoot	--	30	-0.15474493274646678	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Eucalyptus maideni</i>	Shoot	--	55	-0.14438202244722256	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Eucalyptus melanophloia</i>	Leaf	0	0.8	-0.33986573222152267	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>Symphyomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Eucalyptus melliodora</i>	Shoot	--	50	-0.1464546045070714	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Eucalyptus moluccana</i>	Shoot	--	325	-0.0324625912153853	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus occidentalis</i>	Shoot	--	145	-0.10707554536994349	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus ochrophloia</i>	Leaf	0.5	0.5	-0.34003702946029557	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
<i>Eucalyptus odorata</i>	Leaf	200	200	-0.2261243656763046	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
<i>Eucalyptus oviformis</i>	Shoot	--	70	-0.13816427626767605	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus paniculata</i>	Shoot	--	5	-0.16510784304571097	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus polyanthemus</i>	Shoot	--	65	-0.1402368583275249	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus populnea</i>	Leaf	1.8	1.8	-0.33929474142561294	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
<i>Eucalyptus porosa</i>	Leaf	425	425	-0.09765143659661539	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 punctata	Shoot	--	155	-0.10293038125024581	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus saligna	Shoot	--	40	-0.1505997686267691	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus siderophloia	Shoot	--	28	-0.15557396557040631	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus sideroxylon	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus sparsa	Leaf	25	25	-0.3260477549605072	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 tereticornis	Shoot	--	75	-0.1360916942078272	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus viridis	Leaf	0	0.5	-0.34003702946029557	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
Foeniculum vulgare	Fruit	10	60	-0.34926054813300195	--
Foeniculum vulgare	Seed	10	60	-0.6599500470035373	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Foeniculum vulgare	Essential Oil	--	10300	-0.5170627044699472	Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Glechoma hederacea	Plant	1	8	-0.2780031828594647	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Glycyrrhiza glabra	Rhizome Essent. Oil	72000	72000		--
Hedeoma drummondii	Plant	100	100	-0.2379241877917408	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hedeoma reverchonii	Plant	422	422	-0.09764770505470709	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hedychium flavum	Shoot	--	10	-0.16303526098586213	--
Hypericum perforatum	Plant	0.5	9	-0.2775675416087286	--
Hyptis suaveolens	Shoot	100	100	-0.12572878390858302	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.
Hyptis suaveolens	Shoot	--	100	-0.12572878390858302	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.
Hyssopus officinalis	Flower	2	28	-0.877935181573476	Flavour and Fragrance Journal, 6: 72.
Hyssopus officinalis	Leaf	1	790	0.11076020391043574	Flavour and Fragrance Journal, 6: 72.
Hyssopus officinalis	Shoot	85	85	-0.13194653008812954	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.
Hyssopus officinalis	Shoot	--	85	-0.13194653008812954	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.
Illicium verum	Fruit	1	100	-0.3432015870721531	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Isanthus brachiatus	Plant	2	2	-0.28061703036388147	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Juniperus communis	Fruit	13	1050	-0.19930126187699354	--
Juniperus communis	Fruit Essent. Oil	--	--		--
Juniperus communis	Leaf Essent. Oil	--	--		--
Juniperus communis	Essential Oil	--	21000	-0.4130918835519973	--
Lantana camara	Shoot	--	1	-0.16676590869359004	--
Laurus nobilis	Leaf	190	1380	0.44764477349717596	--
Laurus nobilis	Leaf Essent. Oil	7800	22000	-0.3624984026500584	--
Laurus nobilis	Essential Oil	--	--		--
Lavandula latifolia	Plant	0	121	-0.22877572152628206	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lavandula x hybrida	Shoot	35	80	-0.13401911214797838	Tucker, A.O., Maciarello, M.J., Angell, S., Espaillat, J.R., and French, E.C. 1993. The Essential Oil of Lavandula x hybrida Balb. ex Ging., a Distinct Hybrid from L. x heterophylla Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445.
Lavandula x intermedia	Plant	46	279	-0.1599444039099736	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lepechinia calycina	Plant	35	35	-0.2662408690895892	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Levisticum officinale	Root	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lindera benzoin	Twig	26	29		--
Litsea glaucescens	Shoot	195	250	-0.06355132211311788	Tucker, et al, EB46(1):21-24.1992
Lycopus uniflorus	Plant	3	3	-0.28018138911314533	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Melaleuca alternifolia	Leaf	2941	11225	6.06904915922846	--
Melaleuca alternifolia	Leaf Essent. Oil	364000	385000	2.7176167658294537	--
Melaleuca alternifolia	Essential Oil	6000	374000	3.016973516825227	--
Melaleuca alternifolia	Resin, Exudate, Sap	--	--		--
Melaleuca alternifolia	Root Essent. Oil	--	6900		--
Melaleuca linariifolia	Leaf	5550	7400	3.8850093648737456	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Mentha longifolia	Shoot	1	800	0.16443270447025435	--
Mentha spicata	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Mentha spicata	Essential Oil	--	--		--
Mentha x piperita	Essential Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria congesta	Leaf	25	30	-0.32319280098095854	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.
Micromeria fruticosa	Leaf	2460	2460	1.0643148330796834	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.
Micromeria myrtifolia	Shoot	0	0	-0.1671804251055598	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of Micromeria myrtifolia Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.
Micromeria teneriffae	Leaf	140	140	-0.26038381343088834	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.
Micromeria varia	Shoot	21	21	-0.1584755804541947	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	--	21	-0.1584755804541947	--
Monarda citriodora	Flower	75	75	-0.19686780421513225	Collins, J.E., Bishop, C.D., Deans, S.G. and Svoboda, K.P. 1994. Composition of the Essential Oil from the Leaves and Flowers of Monarda citriodora var. citriodora grown in the United Kingdom. J. Ess. Oil Res. 6: 27-9.
Monarda citriodora	Leaf	145	145	-0.2575288594513397	Collins, J.E., Bishop, C.D., Deans, S.G. and Svoboda, K.P. 1994. Composition of the Essential Oil from the Leaves and Flowers of Monarda citriodora var. citriodora grown in the United Kingdom. J. Ess. Oil Res. 6: 27-9.
Monarda punctata	Plant	40	150	-0.21614212525493431	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Murraya koenigii	Leaf	--	140	-0.26038381343088834	--
Myristica fragrans	Seed	600	4800	1.9180648061337349	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Myristica fragrans	Essential Oil	30000	63000	-0.0049821192011661975	--
Myristica fragrans	Seed Essent. Oil	30000	247000	1.729953772502488	--
Myrrhis odorata	Leaf Essent. Oil	--	6000	-0.49826105470425175	--
Myrtus communis	Plant	3	4	-0.27974574786240924	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Nepeta racemosa	Shoot	45	45	-0.14852718656692027	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Nepeta racemosa	Shoot	--	45	-0.14852718656692027	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Ocimum basilicum	Plant	2	120	-0.2292113627770182	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum basilicum	Leaf Essent. Oil	24300	25700	-0.33110328936252614	--
Ocimum basilicum	Essential Oil	1700	6800	-0.5510718514991831	--
Ocimum basilicum	Shoot Essent. Oil	--	--		--
Ocimum gratissimum	Plant	5	50	-0.2597062503285473	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ocimum gratissimum	Shoot	0.1	0.1	-0.16713897346436285	Vostrowsky, O., Garbe, W., Bestmann, H.J. and Maia, J.G.S. 1990. Essential Oil of Alfavaca, Ocimum gratissimum, from Brazilian Amazon. Zeitschr. Naturforschung 45(C): 1073-6.
Ocimum kilimandscharicum	Flower	75	200	1.6144816036528034	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.



Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum kilimandscharicum	Leaf	65	160	-0.24896399751269374	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.
Ocimum tenuiflorum	Leaf	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Origanum majorana	Plant	1365	7826	5.665014759682814	--
Origanum majorana	Leaf	135	1530	0.5332933928836353	--
Origanum majorana	Shoot Essent. Oil	--	176700	1.412151043457717	--
Origanum majorana	Leaf Essent. Oil	--	310000	2.081229334325422	--
Origanum majorana	Essential Oil	--	103000	0.3836938468472445	--
Origanum minutiflorum	Shoot	155	205	-0.08220456065175742	Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of Origanum minutiflorum O. Schwarz and P.H. Davis. J. Ess. Oil Res. 3: 445-446.
Origanum onites	Plant	144	144	-0.2187559727593511	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum onites	Shoot	325	325	-0.0324625912153853	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.
Origanum sipyleum	Shoot	520	520	0.048368109118719395	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum sipyleum	Shoot	--	200	-0.08427714271160626	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum sipyleum	Shoot	--	520	0.048368109118719395	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum sipyleum	Shoot	--	270	-0.055260993873722526	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum syriacum	Shoot	335	335	-0.028317427095687624	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot	--	315	-0.03660775533508298	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot	--	335	-0.028317427095687624	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum vulgare	Plant	35	35	-0.2662408690895892	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	95	95	-0.24010239404542144	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	220	220	-0.18564723770340524	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	0	0	-0.28148831286535375	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	17	390	-0.11158822507826323	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Essential Oil	--	20000	-0.42280878270320754	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum vulgare	Shoot Essent. Oil	--	44800	-0.639953869859281	--
Pelargonium roseum	Shoot	--	1080	0.2804972998217893	--
Petroselinum crispum	Leaf	0.72	0.72	-0.3399114114851954	--
Peumus boldus	Leaf	120	650	0.030821492483073667	--
Pimenta dioica	Fruit	1260	1260	-0.1674917163075372	--
Pimenta racemosa	Leaf	0	190	-0.21755950373765864	--
Pinus sylvestris	Essential Oil	--	--		--
Pinus sylvestris	Leaf Essent. Oil	--	--		--
Piper nigrum	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper nigrum	Fruit Essent. Oil	--	1900	-0.669433558721516	--
Pycnanthemum clinopodioides	Shoot	294	308	-0.039509370218871354	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum loomisii	Shoot	396	714	0.12878429304085434	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum montanum	Shoot	14	16	-0.16054816251404352	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum pilosum	Flower	48	175	1.2522117220792164	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Pycnanthemum pilosum</i>	Leaf	48	175	-0.24039913557404782	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum setosum</i>	Shoot	220	341	-0.02583032862386902	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum tenuifolium</i>	Shoot	2	40	-0.1505997686267691	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Ravensara aromatica</i>	Leaf	--	100	-0.2832234452672775	--
<i>Rosa damascena</i>	Essential Oil	--	--		--
<i>Rosmarinus eriocalyx</i>	Shoot	75	150	-0.10500296331009465	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus eriocalyx</i>	Shoot	75	150	-0.10500296331009465	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Leaf	40	40	-0.3174828930218612	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. Flavour and Fragrance J. 9: 29-33.
<i>Rosmarinus officinalis</i>	Leaf	--	40	-0.3174828930218612	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. Flavour and Fragrance J. 9: 29-33.
<i>Rosmarinus officinalis</i>	Plant	4	521	-0.05451922123183026	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Rosmarinus officinalis</i>	Shoot	--	18	-0.159719129690104	Tucker, A. O. and Maciarelllo, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus officinalis	Shoot	25	240	-0.06769648623281556	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Shoot	60	190	-0.08842230683130393	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Essential Oil	40000	68000	0.04360237655488514	--
Rosmarinus officinalis	Resin, Exudate, Sap	--	--		--
Rosmarinus officinalis	Leaf Essent. Oil	--	1000	-0.5406868834711872	--
Rosmarinus officinalis	Shoot Essent. Oil	--	36300	-0.7721971735984355	--
Rosmarinus tomentosus	Shoot	48	170	-0.0967126350706993	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus x lavandulaceus	Shoot	26	130	-0.11329329154949	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus x mendizabalii	Shoot	27	55	-0.14438202244722256	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Salvia canariensis	Leaf	0.1	0.1	-0.3402654257786595	Casnigueral,S., Iglesias,J., Vila,R., Virgili,A. and Ibanez,C.1994. The Essential Oil from Leaves of Salvia canariensis L. Flav. & Frag. J. 9:201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave.Diagonal 643,E-08028, Barcelone Spain

Plant	Part	Low PPM	High PPM	StdDev	Reference
Salvia gilliesii	Shoot	7.5	7.5	-0.16407155201578655	Velasco-Negueruela, A. et al. 1993. The Essential Oil of Salvia gilliesii Benth. J. Ess. Oil Res. 5: 319-320.
Salvia officinalis	Leaf	10	1120	0.29918716656064637	--
Salvia officinalis	Essential Oil	--	4500	-0.5734207195469667	--
Salvia officinalis	Leaf Essent. Oil	2000	3000	-0.523716551964413	--
Salvia sclarea	Plant	1	6	-0.27887446536093696	Flavour and Fragrance Journal, 6: 154.
Sambucus nigra	Flower Essent. Oil	--	--		--
Sassafras albidum	Leaf	--	0	-0.34032252485825043	--
Satureja cilicica	Shoot	55	55	-0.14438202244722256	Tumen, G. Baser, K.H.C. and Kirimer, N. 1993. The Essential Oil of Satureja cilicica P.H. Davis. J. Ess. Oil Res. 5: 547-548.
Satureja cuneifolia	Shoot	135	135	-0.11122070948964116	Tumen, G. 1991. The Volatile Constituents of Satureja cuneifolia. J. Ess. Oil Res., 3: 365-366.
Satureja douglasii	Plant	104	143	-0.21919161401008722	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Satureja grandiflora	Shoot	30	30	-0.15474493274646678	Carnat, A., Chossegras, A., and Lamaison, J. 1991. The Essential Oil of Satureja grandiflora (L.) Scheele from France. J. Ess. Oil Res., 3: 361-362
Satureja hortensis	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Satureja montana	Plant	1	1610	0.41989410081981476	--
Satureja montana	Essential Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Satureja obovata	Leaf	855	855	0.14787460564456814	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	--	825	0.13074488176727628	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	--	970	0.213538547174187	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	--	855	0.14787460564456814	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	Shoot	270	575	0.07116651177705662	Fitoterapia No.60: 277.
Scutellaria baicalensis	Root Essent. Oil	--	--		--
Sideritis athoa	Shoot	0.2	0.2	-0.16709752182316592	Ozek, T., Baser, K.H.C. and Tumen, G. 1993. The Essential Oil of Sideritis athoa Papanikolaou Et Kokkini. J. Ess. Oil Res. 5: 669-670.
Sideritis germanicolpitana	Plant	7	36	-0.2658052278388531	J. Essential Oil, 4: 533.
Sideritis mugronensis	Flower	1	95	0.09294810104373745	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.
Sideritis mugronensis	Leaf	20	50	-0.31177298506276396	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.
Sideritis pauli	Shoot	35	35	-0.15267235068661794	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. FFJ7: 47-8. 1992.
Syzygium aromaticum	Essential Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tagetes minuta	Flower Essent. Oil	--	500		--
Tamarindus indica	Fruit	--	--		--
Tamarindus indica	Fruit Essent. Oil	--	--		--
Tanacetum parthenium	Shoot	--	4	-0.16552235945768073	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
Tanacetum parthenium	Fruit Essent. Oil	--	1000	-0.7441224268433381	--
Tanacetum parthenium	Essential Oil	--	28000	-0.3450735894935254	--
Telosma cordata	Flower	47	47	-0.6026100715775499	K. Furukawa, T. Arai, S. Hashimoto, (1993); Volatile components of Telosma cordata Merrill flowers, Flavour Fragr. J., Vol 8, 221-223.
Teucrium arduini	Shoot	3	3	-0.1659368758696505	Blazevic, N., Kalodera, Z., Petricic, J., and Plazibat, M. 1992. Essential Oil Content and Composition of Teucrium arduini L. J. Ess. Oil Res. 4: 223-225.
Teucrium arduini	Shoot	--	3	-0.1659368758696505	Blazevic, N., Kalodera, Z., Petricic, J., and Plazibat, M. 1992. Essential Oil Content and Composition of Teucrium arduini L. J. Ess. Oil Res. 4: 223-225.
Teucrium asiaticum	Shoot	1.73	1.73	-0.16646331171285209	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium cyprium	Leaf	0	0	-0.34032252485825043	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, 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 divaricatum	Leaf	0	0	-0.34032252485825043	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium gnaphalodes	Shoot	2.5	2.5	-0.16614413407563539	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian Teucrium Species. J. Ess. Oil Res. 5: 397-402.
Teucrium kotschyianum	Leaf	0	0	-0.34032252485825043	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium micropodioides	Leaf	12	12	-0.3334706353073337	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium oxylepis	Shoot	1.1	1.1	-0.16672445705239308	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium oxylepis	Shoot	2.41	2.41	-0.16618144055271272	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium polium	Shoot	22	22	-0.15806106404222492	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian Teucrium Species. J. Ess. Oil Res. 5: 397-402.
Teucrium pseudoscorodonia	Shoot	--	--		Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium salviastrum	Shoot	--	--		Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Teucrium scorodonia	Shoot	0.24	0.24	-0.16708094116668715	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Thymus broussonettii	Shoot	0.1	0.1	-0.16713897346436285	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjilali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of <i>Thymus broussonettii</i> , <i>T. zygis</i> and <i>T. saturejoides</i> . <i>J. Ess. Oil Res.</i> 5: 45-53.
Thymus capitatus	Plant	50	70	-0.2509934253138247	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
Thymus capitatus	Shoot	37	37	-0.1518433178626784	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.
Thymus cilicicus	Shoot	450	450	0.019351960280835658	Tumen, G., Koyuncu, M., Kirimer, N., and Baser, K.H.C. 1994. Composition of the Essential Oil of <i>Thymus cilicicus</i> Boiss. & Bal. <i>J. Ess. Oil Res.</i> 6: 97-8.
Thymus funkii	Shoot	105	105	-0.12365620184873419	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> Cousson. <i>Flav. &amp; Fragr. J.</i> 10(6): 379-383.
Thymus funkii	Shoot	--	105	-0.12365620184873419	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> Cousson. <i>Flav. &amp; Fragr. J.</i> 10(6): 379-383.
Thymus longicaulis	Shoot	1.5	1.5	-0.16655865048760515	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.
Thymus longicaulis	Shoot	--	30	-0.15474493274646678	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.
Thymus longicaulis	Shoot	--	1.5	-0.16655865048760515	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus mastichina	Plant	10	70	-0.2509934253138247	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus orospedanus	Plant	140	140	-0.2204985377622956	J. Nat. Prod.
Thymus riatarum	Shoot	275	275	-0.05318841181387369	Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and Il Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riatarum. J. Ess. Oil Res. 3: 43-4.
Thymus saturejoides	Shoot	40	40	-0.1505997686267691	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjilali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus serpyllum	Plant	10	191	-0.198280833974753	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thymus vulgaris	Essential Oil	--	--		--
Thymus zygis	Shoot	0.1	250	-0.06355132211311788	De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of Thymus zygis ssp. sylvestris from Central Portugal. J. Ess. Oil Res. 3: 409-12.
Thymus zygis	Shoot	185	185	-0.09049488889115277	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Thymus zygis	Shoot	--	185	-0.09049488889115277	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Trichostemma dichotomum	Shoot	13	13	-0.16179171174995283	Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.
Umbellularia californica	Plant	280	1120	0.2064298879591113	--
Vetiveria zizanioides	Root	--	15	0.030164848870338087	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vitex agnus-castus	Leaf	--	11	-0.3340416261032434	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.
Vitex agnus-castus	Leaf Essent. Oil	--	38200	-0.22503871744518758	Jim Duke's personal files.
Zingiber officinale	Rhizome	--	--		--
Zingiber officinale	Rhizome Essent. Oil	--	--		--