

# C ALPHA-TERPINENE

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ALPHATERPINENE

\*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Achillea millefolium	Leaf	2	130	0.2663807470003411	--
Acinos alpinus	Shoot	0.5	0.5	-0.4798166343572028	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 alpinus	Shoot	--	0.5	-0.4798166343572028	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.)
Acorus calamus	Plant	--	--		--
Agathosma betulina	Leaf	--	--		--
Agathosma betulina	Leaf Essent. Oil	--	--		--
Ageratum conyzoides	Plant	4	30	-0.4563792530327342	--
Aloysia citrodora	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anethum graveolens	Leaf	0.1	2100	0.7727809471570283	--
Anethum graveolens	Shoot Essent. Oil	--	3400	-0.7201742929072495	--
Anethum graveolens	Seed Essent. Oil	--	--		--
Anethum graveolens	Essential Oil	--	--		--
Angelica archangelica	Root	0	7	-0.6602197185589468	--
Angelica archangelica	Fruit	--	--		--
Angelica archangelica	Root Essent. Oil	--	--		--
Apium graveolens	Fruit Essent. Oil	--	1000	-0.8348120728111189	--
Apium graveolens	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Apium graveolens	Seed Essent. Oil	--	1000	-1.0089204175742374	--
Apium graveolens	Leaf Essent. Oil	--	--		--
Artemisia annua	Leaf	4	11715	5.741186992571873	--
Artemisia capillaris	Essential Oil	--	--		--
Artemisia salsoloides	Shoot	2650	2650	6.9451946634613355	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Aspalathus linearis	Leaf Essent. Oil	--	--		--
Barosma betulina	Leaf	--	--		--
Boswellia sacra	Resin Essent. Oil	--	--		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	--	14	-0.4419839668650155	--
Callicarpa americana	Leaf	--	0.55	-0.3120781346990502	--
Carica papaya	Fruit	--	--		--
Carum carvi	Seed	6	12	-0.5062619617372923	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Chamaemelum nobile	Plant	--	--		--
Chrysanthemum parthenium	Shoot	--	45	-0.35510895262369646	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.
Chrysanthemum x morifolium	Plant	6	24	-0.4654209872833327	Wealth of India.
Cinnamomum aromaticum	Plant	--	--		--
Cinnamomum camphora	Leaf	24	24	-0.29996070133815805	--
Cinnamomum verum	Plant	42	168	-0.2484193652689688	--
Cinnamomum verum	Leaf	90	180	-0.21935005723158335	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cinnamomum verum	Root Bark	--	--		--
Cinnamomum verum	Leaf Essent. Oil	--	--		--
Cinnamomum verum	Bark Essent. Oil	--	--		--
Cinnamomum verum	Stem Bark	--	--		--
Cistus ladaniferus	Leaf	2	140	-0.24001945315634607	--
Citrus aurantiifolia	Fruit	80	80	-0.0127221438562562	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus aurantium	Leaf	1	1	-0.31184560399489664	--
Citrus limon	Essential Oil	70	70	-0.7756123212065256	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Pericarp	--	--		Jim Duke's personal files.
Citrus limon	Petiole	--	8		--
Citrus paradisi	Pericarp	--	1		--
Citrus reticulata	Fruit	0.7	1	-0.4549438642997257	--
Citrus sinensis	Fruit	1	2	-0.44934612100297294	--
Coleus barbatus	Leaf Essent. Oil	--	4000	-0.40119306019054174	Jim Duke's personal files.
Coleus barbatus	Stem Essent. Oil	--	4000		Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coriandrum sativum	Fruit	1	15	-0.37657545814518684	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Coriandrum sativum	Seed Essent. Oil	200	19700	0.21421162836665333	--
Coriandrum sativum	Essential Oil	--	--		--
Coridothymus capitatus	Shoot	130	130	-0.11690326841362823	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Crocus sativus	Silk Stigma Style	--	--		--
Cuminum cyminum	Fruit	--	27	-0.3094025385841535	--
Cuminum cyminum	Seed	27	27	-0.49447014585831817	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cuminum cyminum	Seed Essent. Oil	--	5000	-0.747287894378325	--
Cunila organoides	Shoot	--	644	1.3235405161037257	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Curcuma longa	Leaf	--	37	-0.2932431476626101	--
Curcuma longa	Rhizome	--	23	-1	--
Daucus carota	Root	28	28	-0.4450369954730677	--
Daucus carota	Seed	20	40	-0.48425057209654054	--
Elettaria cardamomum	Fruit	21	60	-0.12467700979131179	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Elettaria cardamomum	Root Essent. Oil	--	7000	-0.6459900875555472	--
Elsholtzia pilosa	Shoot	10	10	-0.4531936461219599	--
Elsholtzia polystachya	Leaf	0.2	0.2	-0.31225899191339185	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	--	0.2	-0.31225899191339185	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	Shoot	--	21	-0.4223670281653628	--
Eucalyptus albens	Shoot	--	0.1	-0.48093760228289717	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 astringens	Shoot	--	0.1	-0.48093760228289717	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 blakelyi	Shoot	--	0.1	-0.48093760228289717	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 bosistoana	Shoot	--	0.1	-0.48093760228289717	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 botryoides	Shoot	--	0.1	-0.48093760228289717	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus brassiana	Leaf	--	7	-0.3087451946061822	Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Chemical Constituents of the Leaf Essential Oil of Eucalyptus brassiana S. T. Blake. Journal of Essential Oil Res. 3: 45-7.
Eucalyptus camaldulensis	Shoot	--	0.1	-0.48093760228289717	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 citriodora	Shoot	--	0.1	-0.48093760228289717	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 cladocalyx	Shoot	--	0.1	-0.48093760228289717	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 dealbata	Shoot	--	0.1	-0.48093760228289717	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 diversicolor	Shoot	--	0.1	-0.48093760228289717	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 globulus	Shoot	--	0.1	-0.48093760228289717	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 globulus	Fruit Essent. Oil	--	--	--	--
Eucalyptus maculata	Shoot	--	0.1	-0.48093760228289717	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.

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Eucalyptus maideni	Shoot	--	0.1	-0.48093760228289717	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 melliodora	Shoot	--	0.1	-0.48093760228289717	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 moluccana	Shoot	--	145	-0.07486697120008677	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 occidentalis	Shoot	--	0.1	-0.48093760228289717	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 oviformis	Shoot	--	30	-0.3971452498372379	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 polyanthemos	Shoot	--	0.1	-0.48093760228289717	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 punctata	Shoot	--	45	-0.35510895262369646	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	-0.36912105169487697	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	--	0.1	-0.48093760228289717	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.



Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus sideroxylon	Shoot	--	22	-0.4195646083511267	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 tereticornis	Shoot	--	0.1	-0.48093760228289717	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.
Foeniculum vulgare	Fruit	--	1	-0.4549438642997257	--
Foeniculum vulgare	Plant	135	135	-0.29814890364726054	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Foeniculum vulgare	Seed	1	1	-0.5149092933818734	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Foeniculum vulgare	Seed Essent. Oil	--	--		Jim Duke's personal files.
Helianthus annuus	Flower	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
Hypericum perforatum	Plant	1	18	-0.4744627215339312	--
Hyptis suaveolens	Plant	130	130	-0.30568368218942593	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 74.
Hyptis suaveolens	Shoot	0	0	-0.48121784426432085	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	--	0	-0.48121784426432085	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	Leaf	1	411	0.6590992695708332	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Illicium verum	Fruit	70	70	-0.06869957682378398	--
Juniperus communis	Fruit	16	640	3.1220141023253	--
Juniperus sabina	Plant	--	--		--
Laurus nobilis	Leaf	14	300	-0.1573418694572951	--
Laurus nobilis	Leaf Essent. Oil	--	--		--
Lavandula latifolia	Plant	4	11	-0.4850114114929628	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lavandula x hybrida	Shoot	1	9	-0.45599606593619596	Tucker, A.O., Maciarelo, 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	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lepechinia calycina	Plant	115	115	-0.3282880178159222	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Levisticum officinale	Root	1	10	-0.621095587088787	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lindera benzoin	Fruit	4	6	-0.42695514781596183	--
Lindera benzoin	Twig	7	9		--
Litsea glaucescens	Shoot	60	75	-0.2710363581966136	Tucker, et al, EB46(1):21-24.1992
Magnolia denudata	Bark	--	--		--
Magnolia denudata	Bulb	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Magnolia denudata	Leaf	--	--		--
Magnolia denudata	Twig	--	--		--
Melaleuca alternifolia	Leaf	190	4375	1.9483528403779093	--
Melaleuca alternifolia	Leaf Essent. Oil	--	4000	-0.40119306019054174	--
Melaleuca alternifolia	Essential Oil	13000	99000	1.9993554266154203	--
Melaleuca alternifolia	Root Essent. Oil	--	92400	1.4125007138341448	--
Melaleuca alternifolia	Resin, Exudate, Sap	--	--		--
Mentha longifolia	Shoot	0	170	-0.004806475844184345	--
Mentha pulegium	Plant	--	20	-0.471448810117065	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Mentha pulegium	Essential Oil	--	1000	-0.7495259974879932	--
Mentha x piperita	Plant	20	20	-0.471448810117065	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Micromeria congesta	Leaf	2	2	-0.31132886909677754	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	Shoot	7	7	-0.46160090556466815	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Micromeria fruticosa	Shoot	--	7	-0.46160090556466815	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria juliana	Leaf	15	15	-0.30461131542122966	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.
Micromeria myrtifolia	Shoot	0	0	-0.48121784426432085	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of <i>Micromeria myrtifolia</i> Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.
Micromeria teneriffae	Leaf	90	90	-0.2658561980622995	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.
Micromeria thymifolia	Leaf	5	5	-0.30977866440242036	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.
Micromeria varia	Shoot	3	3	-0.47281058482161253	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. flav. & Fragr. J. 10(3): 199-202.
Micromeria varia	Shoot	--	3	-0.47281058482161253	--
Monarda citriodora	Flower	320	320	1.4109835651403249	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 <i>Monarda citriodora</i> var. <i>citriodora</i> grown in the United Kingdom. J. Ess. Oil Res. 6: 27-9.
Monarda citriodora	Leaf	120	120	-0.25035415111872744	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 <i>Monarda citriodora</i> var. <i>citriodora</i> grown in the United Kingdom. J. Ess. Oil Res. 6: 27-9.
Monarda didyma	Flower	25	25	-0.6227631044837592	Flavour and Fragrance Journal, 6: 80.
Monarda didyma	Leaf	10	15	-0.30461131542122966	--
Monarda didyma	Plant	5	40	-0.44130969594840336	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda fistulosa	Plant	3	3193	4.310121652741106	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Monarda punctata	Plant	550	1740	2.120515008387837	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Murraya koenigii	Leaf	--	65	-0.2787745705152762	--
Myrciaria dubia	Fruit	--	--		--
Myristica fragrans	Seed	400	3200	1.9998919730740246	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Myristica fragrans	Seed Essent. Oil	8000	40000	1.5419966835859091	--
Myristica fragrans	Essential Oil	14000	42000	0.4005162309634348	--
Myrrhis odorata	Essential Oil	--	100	-0.7747708268930245	Hussain, R.A., et. al. 1990. Sweetening Agents of Plant Origin: Phenylpropanoid Constituents of Seven Sweet-Tasting Plants. Econ. Bot. 44 2: 174-182. Program Collab. Res. Pharm. Sci. Coll. Pharmacy Univ. Illinois at Chicago IL 60680, USA.
Myrtus communis	Shoot	0	4	-0.47000816500737647	--
Nepeta racemosa	Shoot	13	13	-0.4447863866792516	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	--	13	-0.4447863866792516	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	1	10	-0.48651836720139585	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum basilicum	Essential Oil	--	400	-0.766355883758014	--
Ocimum basilicum	Shoot Essent. Oil	--	300	-0.9635029368323148	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum basilicum	Leaf Essent. Oil	--	600	-0.698535055754104	--
Ocimum gratissimum	Plant	60	370	0.05598568783451388	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ocimum gratissimum	Shoot	29	29	-0.39994766965147405	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.
Origanum majorana	Plant	183	1050	2.256141022146814	--
Origanum majorana	Leaf	138	1620	0.5247481960598754	--
Origanum majorana	Leaf Essent. Oil	--	20000	0.9980633895203395	--
Origanum majorana	Essential Oil	--	68000	1.1298113026643404	--
Origanum minutiflorum	Shoot	125	145	-0.07486697120008677	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	47	47	-0.4307610059893718	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum onites	Shoot	350	350	0.49962909071831313	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 onites	Shoot	--	350	0.49962909071831313	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	325	325	0.4295685953624107	Baser, K.H.C., Ozek, T., Kurkcuglu, 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	--	15	-0.4391815470507794	Baser, K.H.C., Ozek, T., Kurkcuglu, 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	--	325	0.4295685953624107	Baser, K.H.C., Ozek, T., Kurkcuglu, 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	--	410	0.6677742795724789	Baser, K.H.C., Ozek, T., Kurkcuglu, 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	990	990	2.293177771829415	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot	--	990	2.293177771829415	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot	--	990	2.293177771829415	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum vulgare	Plant	1	1	-0.5000809685772936	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	Shoot	495	495	0.9059799637825472	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Origanum vulgare	Plant	435	435	0.15393780888266426	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	3	3	-0.49706705716042743	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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum vulgare	Plant	2	2	-0.4985740128688605	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	9	178	-0.233349808184638	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Shoot Essent. Oil	6200	13700	0.08830474981151562	--
Pastinaca sativa	Root	--	--		--
Pavonia odorata	Root	250	250	1.726352301120801	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Petroselinum crispum	Leaf	0.24	0.24	-0.3122383225174671	--
Petroselinum crispum	Seed Essent. Oil	--	--		--
Petroselinum crispum	Fruit Essent. Oil	--	18000	1.4059992805239898	--
Peumus boldus	Leaf	3	12	-0.30616152011558684	--
Pimenta dioica	Leaf	11	11	-0.30667825501370594	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pimenta dioica	Fruit	--	3	-0.44374837770622017	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pimpinella anisum	Essential Oil	--	--		--
Pinus sylvestris	Root	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Pinus sylvestris	Leaf	--	--		--



Plant	Part	Low PPM	High PPM	StdDev	Reference
Pinus sylvestris	Leaf Essent. Oil	--	34500	2.2661395470708254	--
Pinus sylvestris	Essential Oil	--	--		--
Piper auritum	Leaf	--	--		Tramil
Piper cubeba	Fruit	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Piper cubeba	Fruit Essent. Oil	--	--		--
Piper nigrum	Fruit	--	--		--
Piper nigrum	Fruit Essent. Oil	--	3000	-0.5711872077128709	--
Piper nigrum	Seed Essent. Oil	--	--		--
Porophyllum ruderale	Plant	55	85	-0.37349668906891464	Loayza, I., de Groot, W., Lorenzo, D. et al. 1999. Composition of the essential oil of Porophyllum ruderale (Jacq.) Cass. from Bolivia. Flav. & Fragr. J. 14: 393-8.
Ptychopetalum olacoides	Root Essent. Oil	--	2000	-0.7665106262785971	Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of Ptychopetalum olacoides Root Oil. Planta Med. 53, 2: 231.
Pycnanthemum loomisii	Shoot	33	168	-0.010411315472656538	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ravensara aromatica	Leaf	--	80	-0.2710235470434902	--
Ribes nigrum	Fruit	--	--		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
Rosmarinus eriocalyx	Shoot	150	550	1.0601130535655325	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 eriocalyx	Shoot	150	550	1.0601130535655325	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	Leaf	4	4	-0.3102953993005394	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Rosmarinus officinalis	Leaf	--	4	-0.3102953993005394	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Rosmarinus officinalis	Plant	4	555	0.33477249389463415	--
Rosmarinus officinalis	Shoot	--	5	-0.46720574519314034	Tucker, A. O. and Maciarelllo, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.
Rosmarinus officinalis	Shoot	185	555	1.074125152636713	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	200	540	1.0320888554231715	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	Leaf Essent. Oil	--	3000	-0.48864658829747176	--
Rosmarinus officinalis	Shoot Essent. Oil	--	32900	1.5953724799280489	--
Rosmarinus officinalis	Resin, Exudate, Sap	--	--	--	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus tomentosus	Shoot	16	40	-0.36912105169487697	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	13	140	-0.08887907027126726	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	43	100	-0.20097586284071114	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 dorisiana	Shoot	2.7	3.7	-0.47084889095164734	Tucker, A.O. & Maciarelo, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8.
Salvia officinalis	Leaf	10	56	-0.2834251845983478	--
Salvia officinalis	Essential Oil	--	11200	-0.4634179308976379	--
Salvia officinalis	Leaf Essent. Oil	--	2000	-0.5761001164044018	--
Salvia officinalis	Et	--	1000		--
Sassafras albidum	Leaf	--	0	-0.3123623388930157	--
Satureja cilicica	Shoot	130	130	-0.11690326841362823	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	315	315	0.40154439722004975	Tumen, G. 1991. The Volatile Constituents of Satureja cuneifolia. J. Ess. Oil Res., 3: 365-366.
Satureja douglasii	Plant	13	13	-0.4819975000760966	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Satureja hortensis	Plant	--	--		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
Satureja montana	Plant	15	410	0.11626391617183719	--
Satureja obovata	Leaf	235	235	-0.19092963783503455	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	--	235	-0.19092963783503455	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	--	120	-0.25035415111872744	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	--	55	-0.2839419194964669	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	60	170	-0.004806475844184345	Fitoterapia No.60: 277.
Satureja subspicata	Plant	4	4	-0.49556010145199436	Stanic, G., Petricic, J., and Blazevic, N. 1991. Gas Chromatographic Investigations of Essential Oils of Satureja montana and Satureja subspicata from Yugoslavia. J. Ess. Oil Res., 3: 153-158.
Satureja thymbra	Shoot	555	555	1.074125152636713	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Sideritis germanicolpitana	Plant	2	12	-0.4835044557845297	J. Essential Oil, 4: 533.
Sideritis mugronensis	Flower	1	1	-0.788220460656566	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	10	15	-0.30461131542122966	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sideritis pauli	Shoot	3	3	-0.47281058482161253	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. FFJ7: 47-8. 1992.
Tanacetum parthenium	Shoot	--	45	-0.35510895262369646	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	Plant	--	--	--	--
Tanacetum vulgare	Plant	40	200	-0.20019678259911017	--
Teucrium cyprium	Leaf	130	130	-0.24518680213753677	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	0	0	-0.3123623388930157	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 gnaphalodes	Shoot	0.5	0.5	-0.4798166343572028	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 kotschyannum	Leaf	0	0	-0.3123623388930157	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	-0.3123623388930157	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 polium	Shoot	2	2	-0.47561300463584866	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.
Thymus broussonettii	Shoot	410	410	0.6677742795724789	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, 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.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus capitatus	Plant	10	120	-0.32075323927375676	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus capitatus	Shoot	4	4	-0.47000816500737647	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 cilicicus	Shoot	39	39	-0.3719234715091131	Tumen, G., Koyuncu, M., Kirimer, N., and Baser, K.H.C. 1994. Composition of the Essential Oil of Thymus cilicicus Boiss. & Bal. J. Ess. Oil Res. 6: 97-8.
Thymus longicaulis	Shoot	0	2.5	-0.4742117947287306	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	7	60	-0.313072655410155	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	0	2.5	-0.4742117947287306	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 mastichina	Plant	1	1	-0.5000809685772936	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus riatarum	Shoot	215	215	0.12130241579644002	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	-0.36912105169487697	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	21	344	0.016804839415253733	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thymus vulgaris	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus vulgaris	Essential Oil	--	--		--
Thymus zygis	Shoot	0.1	210	0.10729031672525954	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	390	390	0.611725883287757	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.
Trichostemma dichotomum	Shoot	5.5	5.5	-0.46580453528602234	Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.
Umbellularia californica	Plant	70	720	0.5834201857860928	--
Valeriana officinalis	Leaf Essent. Oil	--	600	-0.698535055754104	--
Valeriana officinalis	Leaf	--	15	-0.30461131542122966	Father Nature's Farmacy: The aggregate of all these three-letter citations.
Zingiber officinale	Rhizome	0.5	35	1	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Zingiber officinale	Rhizome Essent. Oil	--	700		--