

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for BENZALDEHYDE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Zingiber officinale	Rhizome				--
Zea mays	Husk Essent. Oil				--
Zea mays	Shoot				--
Zea mays	Silk Essent. Oil		1000.0		--
Vanilla planifolia	Fruit				--
Vaccinium macrocarpon	Fruit				--
Vaccinium myrtillus	Fruit Juice				--
Vaccinium corymbosum	Fruit Juice				--
Umbellularia californica	Plant	70.0	280.0	1.5029713053954576	--
Triticum aestivum	Shoot				--
Trifolium pratense	Flower		12.0	1.0000000000000004	Buchnauer, G., Jirovetz, L., Nikiforov, A. 1996. Comparative Investigation of Essential Clover Flower Oils from Austria Using Gas Chromatography-Flame Ionization Detection, Gas Chromatography-Mass Spectrometry, and Gas Chrom.-Olfactometry. J. Agrc. Food Chem. 44:1827-8
Thymus capitatus	Shoot		0.0	-0.2250474889068754	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.
Tanacetum parthenium	Shoot				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.
Syzygium aromaticum	Flower				--
Syzygium aromaticum	Fruit				--
Syringa vulgaris	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Styrax benzoin	Plant				--
Sambucus nigra	Plant				--
Sambucus nigra	Leaf Essent. Oil				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sambucus nigra	Flower Essent. Oil				--
Salvia sclarea	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Rubus idaeus	Plant				--
Rosa damascena	Essential Oil				--
Robinia pseudoacacia	Flower				--
Ribes nigrum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rheum palmatum	Rhizome		1.5		--
Psidium guajava	Fruit		1000.0	1.6531405018822756	--
Prunus persica	Seed				--
Prunus dulcis	Seed		8200.0		--
Prunus persica	Fruit				--
Prunus cerasus	Fruit		3.0	-0.7922320209317137	--
Prunus serotina	Bark				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.
Prunus laurocerasus	Leaf	413.0	456.0	0.23876656464824977	--
Pogostemon cablin	Plant				--
Phaseolus vulgaris	Stem Essent. Oil				--
Peumus boldus	Leaf		1.0	-0.46764913165563243	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Petroselinum crispum	Leaf				--
Petiveria alliacea	Root				Tramil

Plant	Part	Low PPM	High PPM	StdDev	Reference
Perilla frutescens	Leaf Essent. Oil		16000.0	0.718924077170524	Kang, R., Helms, R., Stout, M.J., Jaber, H., Chen, Z., and Nakatsu, T. 1992. Antimicrobial Activity of the Volatile Constituents of Perilla frutescens and Its Synergistic Effects with Polygodial. J. Agric. Food Chem., 40: 2328-2330.
Perilla frutescens	Shoot Essent. Oil				Nguyen, X. D., La, D. M., Lu'u, D. C., Leclercq, P. A. 1995. Essential Oil Constituents from the Aerial Parts of Perilla frutescens (L.) Britton. J. Essent. Oil Res., 7(4): 429-432.
Panax ginseng	Shoot				--
Origanum onites	Shoot		0.0	-0.2250474889068754	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.
Ocimum basilicum	Essential Oil		700.0	-0.6916241263883828	--
Ocimum gratissimum	Shoot		0.1	-0.2247983186195243	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.
Narcissus tazetta	Flower				--
Myroxylon balsamum	Plant				--
Murraya koenigii	Leaf		0.1	-0.4690464374285412	--
Morus alba	Plant				--
Micromeria fruticosa	Shoot		0.0	-0.2250474889068754	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		0.0	-0.2250474889068754	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
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				--
Melissa officinalis	Tissue Culture				Gbolade, A.A. and Lockwood, G.B. 1991. The Constituents of Melissa officinalis L. Cultures. J. Ess. Oil Res., 3: 111-114.
Melaleuca viridiflora	Leaf				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Melaleuca leucadendra	Essential Oil				--
Lycopersicon esculentum	Fruit				--
Ligustrum japonicum	Flower				--
Leonurus cardiaca	Plant		1.0	-1.2925553226400937	--
Laurus nobilis	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Juglans nigra	Fruit				--
Juglans nigra	Essential Oil		28000.0	1.4141013736565446	--
Jasminum officinale	Flower				--
Iris x germanica	Rhizome				--
Hyssopus officinalis	Shoot				Indian Perfumer, 35: 51.
Hyacinthus orientalis	Flower	0.16	2.3	-1.0000000000000002	--
Hibiscus sabdariffa	Fruit				Chemical Constituents of Oriental Herbs (3 diff. books)
Glycyrrhiza glabra	Root				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.
Glycyrrhiza glabra	Rhizome Essent. Oil				--
Glycyrrhiza glabra	Root Essent. Oil				--
Ficus carica	Fruit		1.0	-0.7971374823616315	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus sideroxylon	Shoot		0.1	-0.2247983186195243	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 punctata	Shoot		80.0	-0.02571125902603615	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	-0.2247983186195243	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 bosistoana	Shoot		0.1	-0.2247983186195243	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 occidentalis	Shoot		0.1	-0.2247983186195243	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 albens	Shoot		0.1	-0.2247983186195243	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 maideni	Shoot		0.1	-0.2247983186195243	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	-0.2247983186195243	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 siderophloia	Shoot		0.1	-0.2247983186195243	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 polyanthemos	Shoot		0.1	-0.2247983186195243	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 camaldulensis	Shoot		0.1	-0.2247983186195243	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 blakelyi	Shoot		0.1	-0.2247983186195243	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 moluccana	Shoot		0.1	-0.2247983186195243	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 maculata	Shoot		0.1	-0.2247983186195243	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	-0.2247983186195243	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 tereticornis	Shoot		0.1	-0.2247983186195243	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 saligna	Shoot		280.0	0.472629315676062	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 botryoides	Shoot		0.1	-0.2247983186195243	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 oviformis	Shoot		0.1	-0.2247983186195243	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	-0.2247983186195243	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 melliodora	Shoot		0.1	-0.2247983186195243	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	-0.2247983186195243	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	-0.2247983186195243	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.
Eruca sativa	Hs				--
Eriobotrya japonica	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
Ephedra sinica	Shoot		15.0	-0.18767194580421803	--
Elsholtzia polystachya	Leaf		0.0	-0.4692016936255311	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 blanda	Shoot		13.0	-0.192655351551239	Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev. V., Perihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of Elsholtzia blanda Benth. (Labiatae). J. Ess. Oils Res. 4: 121-124

Plant	Part	Low PPM	High PPM	StdDev	Reference
Elsholtzia polystachya	Leaf		0.0	-0.4692016936255311	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.
Cymbopogon winterianus	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Cucumis melo	Petiole				--
Cnicus benedictus	Shoot				Jim Duke's personal files.
Citrullus lanatus	Fruit Juice				--
Cistus ladaniferus	Leaf	28.0	1960.0	2.573819767375808	--
Cinnamomum verum	Stem Bark				--
Cinnamomum verum	Plant	26.0	104.0	-0.260515026268546	--
Cinnamomum verum	Leaf Essent. Oil		7000.0	-1.4141473605881718	--
Cinnamomum aromaticum	Bark				--
Cinnamomum verum	Essential Oil				--
Cinnamomum verum	Bark Essent. Oil				--
Cinnamomum verum	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cinnamomum verum	Bark	26.0	104.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Chrysanthemum x morifolium	Flower				Wealth of India.
Chrysanthemum parthenium	Shoot				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.
Carthamus tinctorius	Bud		0.1		--
Carthamus tinctorius	Leaf		0.04	-0.4691395911467352	--
Carica papaya	Fruit		300.0	-0.06377099858893052	--
Capsicum annuum	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Capsicum frutescens	Fruit				--
Cananga odorata	Flower				--
Camellia sinensis	Leaf				--
Camellia sinensis	Shoot	2100.0	2300.0	5.505869120167252	--
Callicarpa americana	Leaf		0.55	-0.4683477845420869	--
Brassica oleracea	Stem		0.02		--
Avena sativa	Seed				--
Aspalathus linearis	Leaf Essent. Oil		15900.0	0.6952232834176496	--
Arctium lappa	Root				--
Aniba rosaeodora	Essential Oil		300.0	-0.7224772472681619	--
Anacardium occidentale	Fruit				--
Agastache foeniculum	Plant	1.0	135.0	0.05009904351318192	Mazza, G. and Kiehn, F.A. 1992. Essential Oil of Agastache foeniculum, A Potential Source of Methyl Chavicol. J. Ess. Oil Res., 4: 295-299.
Aesculus hippocastanum	Flower Essent. Oil		11000.0		Jim Duke's personal files.
Acinos suaveolens	Shoot		200.0	0.2732930857952227	Jim Duke's personal files.
Acacia farnesiana	Plant				Pakistan Encyclopedia Planta Medica. 1986.
Acacia farnesiana	Flower				Pakistan Encyclopedia Planta Medica. 1986.