

# A Mosquitofuge

\*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	# Chemicals	Total PPM
Acacia farnesiana Huisache; Opopanax; Popinac; Cassie; Sweet Acacia	2	
Achillea millefolium Milfoil; Yarrow	2	
Acinos suaveolens	2	
Acinos alpinus Te de Sierra Nevada	1	
Acorus calamus Calamus; Sweetflag; Sweet Calamus; Sweetroot; Flagroot; Myrtle Flag	2	3000.0
Aframomum melegueta Malagueta (Sp.); Alligator Pepper; Grains-of-Paradise; Malagettapfeffer (Ger.); Guinea Grains; Melegueta Pepper	1	
Agastache rugosa	1	
Allium sativum var. sativum Garlic	1	
Aloysia citrodora Lemon Verbena	1	
Alpinia officinarum Chinese Ginger; Lesser Galangal	1	
Alpinia galanga Languas; Siamese Ginger; Greater Galangal	2	
Amomum compactum Round Cardamom; Chester Cardamom; Java Cardamom; Siam Cardamom	1	
Ananas comosus Pineapple	2	
Anethum graveolens Dill; Garden Dill	2	
Angelica archangelica Wild Parsnip; Angelica; Garden Angelica	2	
Apium graveolens Celery	2	421.0
Artemisia vulgaris Mugwort	1	
Artemisia salsoloides	1	
Artemisia annua Annual Mugwort (GRIN); Annual Wormwood (GRIN); Sweet Annie; Qinghao; Sweet Wormwood (GRIN)	2	
Asarum canadense Wild Ginger	1	
Ballota nigra Black Horehound	1	
Brassica oleracea var. capitata l. Cabbage; White Cabbage; Red Cabbage	1	
Bursera delpechiana Lignaloe; Linaloe	1	20400.0
Calamintha nepeta Turkish Calamint	1	
Callicarpa americana French Mulberry; Beauty Berry; American Beauty Berry	2	
Camellia sinensis Tea	2	2000.0
Capsicum frutescens Cayenne; Spur Pepper; Tabasco; Hot Pepper; Red Chili; Chili	1	
Capsicum annuum Bell Pepper; Green Pepper; Cherry Pepper; Cone Pepper; Sweet Pepper; Paprika	2	
Carica papaya Papaya	1	
Carum carvi Comino de prado (Sp.); Kummel (Ger.); Caraway; Carum; Comino (Sp.)	2	
Centella asiatica Pennywort; Gotu Kola	2	
Chrysanthemum x morifolium Chrysanthemum; Mum; Florist's Chrysanthemum; Ju Hua (Pinyin)	1	
Chrysanthemum parthenium Feverfew	1	
Cinnamomum verum Cinnamon; Ceylon Cinnamon	2	528.0
Cinnamomum camphora Camphor; Ho Leaf	1	992.0
Cinnamomum aromaticum Cassia; Cannelier Casse (Fr.); Cassia Bark; Chinese Cinnamon; Canelle de Cochinchine (Fr.); Cassia Lignea; Chinazimt (Ger.); Canela de la China (Sp.); Saigon Cinnamon; Canelero chino (Sp.); Kashia-Keihi (Jap.); Cannelier de Chine (Fr.); Chinese Cassia; China Junk Cassia; Zimtcassie (Ger.); Chinesischer Zimtbaum (Ger.)	2	
Cistus ladaniferus Ambreine; Rockrose; Labdanum; Gum Cistus	1	3360.0

Plant	# Chemicals	Total PPM
Citrus sinensis Orange	2	55.2
Citrus reticulata Mandarin; Tangerine	2	112.0
Citrus paradisi Grapefruit	1	
Citrus mitis Calamondin; Calamansi	1	
Citrus limon Lemon	2	
Citrus aurantium Petitgrain; Bitter Orange	2	1520.0
Citrus aurantiifolia Lime	2	1180.0
Cleonia lusitanica Spanish Heal-All	1	
Cocos nucifera Nariyal; Copra; Coconut Palm; Cocotero (Sp.); Kokospalme (Ger.); Coconut	1	
Coriandrum sativum Chinese Parsley; Coriander; Cilantro	2	88.0
Coridothymus capitatus Spanish Oregano	1	
Crocus sativus Saffron	1	
Cuminum cyminum Cumin	2	550.0
Curcuma longa Turmeric; Indian Saffron	2	
Cymbopogon parkeri Skhabar	1	140.0
Cymbopogon nardus Citronella; Ceylon Citronella	1	
Cymbopogon citratus Lemongrass; West Indian Lemongrass	2	
Daucus carota Carrot	1	56.0
Dictamnus albus Dittany; Gas Plant; Akgiritotu; Gazelotu; Burning Bush	1	
Dracocephalum thymiflora Thyme-Flowered Moldavica	1	96.0
Elettaria cardamomum Cardamom	2	8600.0
Elsholtzia polystachya Bush Mint	1	
Ephedra sinica Chinese Ephedra; Ma Huang	1	
Eucalyptus viridis	1	
Eucalyptus tetraptera	1	
Eucalyptus tereticornis	2	
Eucalyptus stoatei	1	
Eucalyptus sparsa	1	
Eucalyptus sideroxylon	2	
Eucalyptus siderophloia	2	
Eucalyptus saligna	2	
Eucalyptus punctata	2	
Eucalyptus porosa	1	
Eucalyptus populnea	2	
Eucalyptus polyanthemos	2	
Eucalyptus paniculata	2	
Eucalyptus oviformis	2	
Eucalyptus odorata	1	
Eucalyptus ochrophloia	1	
Eucalyptus occidentalis	2	
Eucalyptus moluccana	2	
Eucalyptus melliodora	2	

Plant	# Chemicals	Total PPM
<i>Eucalyptus melanophloia</i>	1	
<i>Eucalyptus maideni</i>	2	
<i>Eucalyptus maculata</i> Gum	2	
<i>Eucalyptus leucoxylon</i>	1	
<i>Eucalyptus largisparsa</i>	1	
<i>Eucalyptus lansdowneana</i>	1	
<i>Eucalyptus intertexta</i>	1	
<i>Eucalyptus incrassata</i>	1	
<i>Eucalyptus globulus</i> Blue Gum; Tasmanian Bluegum; Eucalypt	2	
<i>Eucalyptus forrestiana</i>	1	
<i>Eucalyptus fasciculosa</i>	1	
<i>Eucalyptus erythrandra</i>	1	
<i>Eucalyptus dolichorhyncha</i>	1	
<i>Eucalyptus diversicolor</i>	2	
<i>Eucalyptus desquamata</i>	1	
<i>Eucalyptus dealbata</i>	2	
<i>Eucalyptus cuprea</i>	1	
<i>Eucalyptus cladocalyx</i>	2	
<i>Eucalyptus citriodora</i> Lemon-Scented Gum; Lemon Eucalyptus; Spotted Gum; Citron-Scented Gum	2	
<i>Eucalyptus ceratocorys</i>	1	
<i>Eucalyptus camaldulensis</i>	2	
<i>Eucalyptus bridgesiana</i> Bridges' Eucalyptus	1	
<i>Eucalyptus brassiana</i> Brasses' Eucalyptus	2	
<i>Eucalyptus botryoides</i>	2	
<i>Eucalyptus bosistoana</i>	2	
<i>Eucalyptus blakelyi</i>	2	
<i>Eucalyptus behriana</i>	1	
<i>Eucalyptus astringens</i>	2	
<i>Eucalyptus angulosa</i>	1	
<i>Eucalyptus albens</i>	2	
<i>Ficus carica</i> Fico (Ital.); Fig; Higuera Comun (Sp.); Higo (Sp.); Figuier Commun (Fr.); Figueira (Port.); Feigenbaum (Ger.); Echte Feige (Ger.)	2	
<i>Foeniculum vulgare</i> Fennel	2	12.0
<i>Fragaria</i> spp Strawberry	2	
<i>Gardenia jasminoides</i> Zhi Zi; Cape Jasmine; Gardenia; Shan-Chih-Tzu; Jasmin; Shan-Zhi-Zi	1	
<i>Glechoma hederacea</i> Alehoof	1	14.0
<i>Glycyrrhiza glabra</i> Licorice; Licorice-Root; Smooth Licorice; Commom Licorice	2	
<i>Helianthus annuus</i> Girasol; Sunflower	2	
<i>Hesperis matronalis</i> Dame's Rocket; Damask-Violet; Dame's-Violet; Sweet Rocket	2	
<i>Hibiscus sabdariffa</i> Jamaica Sorrel; Red Sorrel; Acedera de Guinea (Sp.); Sereni (Sp.); Kharkadi; Roselle; Sorrel; Rosella (Ger.); Rosa de Jamaica (Sp.); Malventee (Ger.); Indian Sorrel	2	
<i>Humulus lupulus</i> Hops	1	
<i>Hypericum perforatum</i> Goatweed; Klamath Weed; Common St. Johnswort; Hypericum; St. John's-wort	2	

Plant	# Chemicals	Total PPM
<i>Hyptis suaveolens</i> Wild Hops	1	220.0
<i>Hyssopus officinalis</i> Hyssop	2	726.0
<i>Illicium verum</i> Star Anise; anis estrellado (Sp.); Chinese Star Anise; Chinesischer Sternanis (Ger.); anis de China (Sp.); Sternanis (Ger.)	2	400.0
<i>Isanthus brachiatus</i> False Pennyroyal	1	4.0
<i>Jasminum officinale</i> Jasmine; Poet's Jessamine	1	380.0
<i>Juniperus communis</i> Common Juniper; Juniper	2	80.0
<i>Lantana camara</i> Wild Sage; Lantana	1	
<i>Laurus nobilis</i> Bay Laurel; Grecian Laurel; Bayleaf; Sweet Bay; Bay; Laurel	2	2760.0
<i>Lavandula x intermedia</i> Dutch Lavender; Lavandin	1	200.0
<i>Lavandula x hybrida</i> Hybrid Lavender	1	
<i>Lavandula latifolia</i> Broad-Leaved Lavender; Aspic; Spike Lavender	1	418.0
<i>Lavandula angustifolia</i> English Lavender	1	
<i>Lepechinia calycina</i> Epling's Lepechinia	1	150.0
<i>Levisticum officinale</i> Lovage	2	160.0
<i>Lindera benzoin</i> Wild Allspice; Spicebush; Benjamin Bush; Fieberstrauch (Ger.)	1	
<i>Litsea glaucescens</i> Mexican bay	1	
<i>Lonicera japonica</i> Japanese Honeysuckle	1	
<i>Lycopus uniflorus</i> One-Flowered Bugle	1	36.0
<i>Magnolia denudata</i> Xin-Yi; Hsin-I	1	
<i>Melaleuca viridiflora</i> Broad-Leaf Tea-Tree; Niaouli	1	
<i>Melaleuca linariifolia</i> Paperbark Tea_tree	1	
<i>Melaleuca alternifolia</i> Teatree	2	
<i>Melia azedarach</i> Chinaberry	1	
<i>Melissa officinalis</i> Melissa; Balm; Lemonbalm; Bee Balm	2	
<i>Mentha x piperita</i> Peppermint	1	
<i>Mentha spicata</i> Hortela da Folha Miuda; Spearmint	2	
<i>Mentha pulegium</i> European Pennyroyal	2	280.0
<i>Mentha longifolia</i> Biblical Mint	2	2350.0
<i>Mentha arvensis</i> var. <i>piperascens</i> Cornmint; Field Mint; Japanese Mint	1	
<i>Mentha aquatica</i> Water Mint	1	
<i>Micromeria varia</i> Madeiran 'Hyssop'	1	
<i>Micromeria teneriffae</i>	1	
<i>Micromeria myrtifolia</i> Dagcayi; Topukcayi; Haydarotu	1	
<i>Micromeria juliana</i>	1	
<i>Micromeria fruticosa</i> Zuta; Zopha; Tea Hyssop	1	
<i>Micromeria congesta</i> Kaya Yarpuzu	1	
<i>Mitracarpus scaber</i>	1	
<i>Moldavica thymiflora</i> Thyme-Flowered Moldavica	1	
<i>Monarda russeliana</i> Russel's Monarda	1	3604.0
<i>Monarda punctata</i> Horsemint	1	9036.0
<i>Monarda media</i> Mean Monarda	1	392.0
<i>Monarda lindheimeri</i> Lindheimer's Monarda	1	62.0

Plant	# Chemicals	Total PPM
<i>Monarda fistulosa</i> Wild Bergamot	1	6628.0
<i>Monarda didyma</i> Oswego Tea; Beebalm	1	960.0
<i>Monarda clinopodia</i> Clinopod Bergamot	1	868.0
<i>Monarda citriodora</i> Lemon Mint	1	22.0
<i>Murraya koenigii</i> Curry Leaf; Curry Leaf Tree; Indian Curry Tree	2	
<i>Myrica cerifera</i> Southern Bayberry; Candle-Berry; Wax Myrtle; Bayberry	1	
<i>Myristica fragrans</i> Mace; Muskatnussbaum (Ger.); nogal moscado (Sp.); Nutmeg; nuez moscada (Sp.)	2	19200.0
<i>Myrtus communis</i> Myrtle; Arrayan (Sp.); Mirto (Sp.); Myrte (Ger.)	2	176.0
<i>Narcissus tazetta</i> Daffodil	1	380.0
<i>Nepeta racemosa</i> Catmint	1	
<i>Ocimum kilimandscharicum</i> Kenyan Perennial Basil; African Blue Basil	1	
<i>Ocimum gratissimum</i> Shrubby Basil; Agbo	1	
<i>Ocimum basilicum</i> Basil; Cuban Basil; Sweet Basil	2	478.0
<i>Origanum vulgare</i> European Oregano; Pot Marjoram; Wild Oregano; Oregano; Common Turkish Oregano; Wild Marjoram	2	
<i>Origanum syriacum</i> Za'Atar	1	
<i>Origanum sipyleum</i> Bayircayi; Guveyoto	2	
<i>Origanum onites</i> Pot Marjoram; Oregano	1	
<i>Origanum minutiflorum</i> Small-Flowered Oregano	1	
<i>Origanum majorana</i> Marjoram; Sweet Marjoram	1	
<i>Pelargonium roseum</i> Scented Geranium	1	
<i>Pelargonium citrosum</i> Citrosa	1	
<i>Perilla frutescens</i> Perilla	1	
<i>Petroselinum crispum</i> Parsley	2	49.4
<i>Peumus boldus</i> Boldo	2	450.0
<i>Pimenta racemosa</i> Bayrum Tree; West Indian Bay	2	830.0
<i>Pimenta dioica</i> Allspice; Jamaica-Pepper; Pimento; Pimenta; Clover-Pepper	2	
<i>Pimpinella anisum</i> Sweet Cumin; Anise	2	2.0
<i>Piper nigrum</i> Black Pepper; Pepper; White Pepper	2	
<i>Piper cubeba</i> Cubeb Pepper; Cubeb	2	
<i>Piper auritum</i> Hierba Santa; Cordoncillo; Hoja Santa	1	
<i>Pistacia lentiscus</i> Mastixbaum (Ger.); Mastic; Lentisco (Sp.); Chios Mastictree; Mastictree	1	
<i>Prunella vulgaris</i> Heal-All; Self-Heal	1	
<i>Prunus armeniaca</i> Apricot	1	
<i>Psoralea corylifolia</i> Malaya Tea; Black Dot; Babchi	1	
<i>Pycnanthemum virginianum</i> Virginia Mountain Mint	1	986.0
<i>Pycnanthemum tenuifolium</i> Slenderleaf Mountain Mint	1	560.0
<i>Pycnanthemum pycnanthemoides</i> Typical Mountain Mint	1	1392.0
<i>Pycnanthemum pilosum</i> Pilose Mountain Mint	1	420.0
<i>Pycnanthemum loomisii</i> Loomis' Mountain Mint	1	3864.0
<i>Pycnanthemum incanum</i> Hoary Mountain Mint	1	
<i>Pycnanthemum clinopodioides</i> Clinopod Mountain Mint	1	88.0
<i>Pycnanthemum californicum</i> California Mountain Mint	1	

Plant	# Chemicals	Total PPM
<i>Pycnanthemum albescens</i> White Mountain Mint	1	324.0
<i>Ravensara aromatica</i> Ravensara	1	
<i>Rheum palmatum</i> Chinese Rhubarb	1	
<i>Ribes nigrum</i> Black Currant	2	
<i>Robinia pseudoacacia</i> Black Locust	1	
<i>Rosmarinus x mendizabalii</i> Mendizabali's Rosemary	1	
<i>Rosmarinus x lavandulaceus</i> Lavender Rosemary	1	
<i>Rosmarinus tomentosus</i> Hairy Rosemary	1	
<i>Rosmarinus officinalis</i> Rosemary	2	3055.0
<i>Rosmarinus eriocalyx</i> Rosemary	1	
<i>Salvia triloba</i> Greek Sage	1	1500.0
<i>Salvia sclarea</i> Clary Sage	1	310.0
<i>Salvia officinalis</i> Sage	2	1820.0
<i>Salvia gilliesii</i> 'Cordoba' Sage	1	
<i>Salvia dorisiana</i> 'Honduran' Sage	1	
<i>Salvia canariensis</i> Canary Island Sage	1	
<i>Santalum album</i> White Sandalwood	1	
<i>Santolina chamaecyparissus</i> Lavender Cotton	1	
<i>Sassafras albidum</i> Sassafras	1	
<i>Satureja thymbra</i> Goat Oregano	1	
<i>Satureja subspicata</i> Yugoslav Savory	1	
<i>Satureja parvifolia</i> Small-Leaf Pampa Savory	1	
<i>Satureja odora</i> Scented Pampa Savory	1	
<i>Satureja obovata</i> Savory; Iberian Savory	1	
<i>Satureja montana</i> Winter Savory; Savory	2	4370.0
<i>Satureja hortensis</i> Summer Savory	2	
<i>Satureja douglasii</i> Douglas' Savory	1	78.0
<i>Satureja cuneifolia</i> Cuneate Turkish Savory	1	
<i>Satureja cilicica</i> Turkish Savory	1	
<i>Scutellaria parvula</i> Small Skullcap	1	72.0
<i>Sideritis scardica</i> Balkan Sideritis	1	
<i>Sideritis pauli</i> El Molinillo Sideritis	1	
<i>Sideritis mugronensis</i>	1	
<i>Sideritis germanicolpitana</i>	1	
<i>Sideritis athoa</i> Kedi Kuyrugu Cayi	1	
<i>Skimmia arborescens</i> Skimmia	1	
<i>Stachys germanica</i> Downy Woundwort	1	12.0
<i>Stevia rebaudiana</i> Sweet Leaf of Paraguay; Ca-A-E; Stevia	2	
<i>Syzygium aromaticum</i> Clove; Clovetree	1	
<i>Tagetes minuta</i> Stinking-Roger; Wild Marigold; Aztec Marigold; Muster John Henry; Dwarf Marigold; Mexican Marigold	1	
<i>Tagetes lucida</i> Anise Marigold; Sweet-Scent Mexican Marigold; Sweet-Scent Marigold; Sweet-Mace	1	
<i>Tamarindus indica</i> Kilytree; Indian Tamarind; Tamarind	1	

Plant	# Chemicals	Total PPM
Tanacetum parthenium Feverfew	1	
Telosma cordata Merrill flowers	1	
Teucrium scorodonia Germander; Wood Germander	1	
Teucrium salviastrum	1	
Teucrium pseudoscorodonia	1	
Teucrium polium Iberian Golden Germander; Golden Germander	1	
Teucrium oxylepis	1	
Teucrium micropodioides Small 'Cyprus' Germander	1	
Teucrium kotschyanum Stavros Kotschy's Germander	1	
Teucrium gnaphalodes Iberian Germander	1	
Teucrium divaricatum Hoary Divaricate Germander	1	
Teucrium cyprium 'Cyprus' Germander	1	
Teucrium asiaticum	1	
Theobroma cacao Cacao	1	
Thymus zygis 'Portuguese' Thyme	1	
Thymus x citriodorus Funk's thyme; Lemon Thyme	1	
Thymus vulgaris Common Thyme; Garden Thyme; Thyme	2	13000.0
Thymus saturejoides Moroccan Savory Thyme	1	
Thymus riatarum 'Moroccan' Thyme	1	
Thymus mastichina Spanish Marjoram	1	1600.0
Thymus funkii Funk's Thyme	2	
Thymus cilicicus 'Anatolian' Thyme	1	
Thymus capitatus Spanish Origanum; 'Sicilian' Thyme; Spanish Thyme	1	40.0
Thymus broussonettii Moroccan Thyme	1	
Trifolium pratense Cowgrass; Purple Clover; Peavine Clover; Red Clover	1	
Umbellularia californica California Bay	1	1920.0
Vaccinium myrtillus Whortleberry; Dwarf Bilberry; Bilberry	2	
Vaccinium macrocarpon Large Cranberry; Cranberry; American Cranberry	1	
Vaccinium corymbosum Blueberry	1	0.06
Valeriana officinalis Garden-Heliotrope; Common Valerian; Valerian	1	
Vetiveria zizanioides Vetiver; Cuscus Grass; Cus-Cus	2	
Vitex agnus-castus Chaste-Tree	2	
Vitis vinifera Vigne Vinifere (Fr.); Wine Grape; Weinrebe (Ger.); Grapevine; Grape; European Grape; Parra (Sp.); Vid (Sp.)	1	
Zea mays Corn	2	
Zingiber officinale Ginger	2	1000.0