

A (-)-Inotropic

*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
<i>Abies spectabilis</i>	1	
<i>Abies sachalinensis</i> Japanese Fir; Shin-Yo-Yu	1	7560.0
<i>Abies balsamea</i> Balsam Fir	1	4090.0
<i>Achillea moschata</i> Iva	2	4536.0
<i>Achillea millefolium</i> Milfoil; Yarrow	3	3190.0
<i>Acinos suaveolens</i>	2	
<i>Acinos alpinus</i> Te de Sierra Nevada	1	
<i>Acorus calamus</i> Calamus; Sweetflag; Myrtle Flag; Sweet Calamus; Flagroot; Sweetroot	2	200.0
<i>Aframomum melegueta</i> Alligator Pepper; Guinea Grains; Malagettapfeffer (Ger.); Malagueta (Sp.); Melegueta Pepper; Grains-of-Paradise	1	
<i>Ageratum conyzoides</i> Mexican ageratum	1	
<i>Ajuga reptans</i> Common Bugle; Bugleherb; Bugleweed; Blue Bugle; Bugle	1	
<i>Ajuga iva</i> Ivy Bugle	1	
<i>Aloysia citrodora</i> Lemon Verbena	2	840.0
<i>Alpinia officinarum</i> Chinese Ginger; Lesser Galangal	1	
<i>Alpinia galanga</i> Greater Galangal; Languas; Siamese Ginger	3	
<i>Amomum xanthioides</i> Chin Kousha; Bastard Cardamom; Malabar Cardamom; Tavoy Cardamom	2	
<i>Amomum compactum</i> Round Cardamom; Siam Cardamom; Java Cardamom; Chester Cardamom	2	
<i>Angelica archangelica</i> Angelica; Garden Angelica; Wild Parsnip	2	150.0
<i>Annona squamosa</i> Sweetsop; Sugar-Apple	1	
<i>Aristolochia serpentaria</i> Serpentaria; Virginia Snakeroot	1	
<i>Artemisia vulgaris</i> Mugwort	2	
<i>Artemisia salsoloides</i>	3	
<i>Artemisia herba-alba</i> Desert Wormwood	3	638.0
<i>Artemisia dracunculus</i> Tarragon	1	1000.0
<i>Artemisia cina</i> Levant Wormseed	1	48000.0
<i>Artemisia annua</i> Sweet Wormwood (GRIN); Annual Mugwort (GRIN); Qinghao; Annual Wormwood (GRIN); Sweet Annie	3	13200.0
<i>Asarum canadense</i> Wild Ginger	1	
<i>Calamintha nepeta</i> Turkish Calamint	3	
<i>Callicarpa americana</i> Beauty Berry; French Mulberry; American Beauty Berry	2	
<i>Cannabis sativa</i> Marijuana; Hemp; Marihuana; Indian Hemp	1	
<i>Capsicum frutescens</i> Cayenne; Spur Pepper; Hot Pepper; Tabasco; Red Chili; Chili	1	
<i>Carum carvi</i> Carum; Caraway; Comino (Sp.); Kummel (Ger.); Comino de prado (Sp.)	1	
<i>Cedrus libani</i> Cedar of Lebanon	1	
<i>Chamaemelum nobile</i> Garden Camomile; Perennial Camomile; Roman Camomile	2	
<i>Chrysanthemum x morifolium</i> Mum; Ju Hua (Pinyin); Chrysanthemum; Florist's Chrysanthemum	3	
<i>Chrysanthemum parthenium</i> Feverfew	3	
<i>Chrysanthemum balsamita</i> Costmary; Balsamite	2	
<i>Cinnamomum verum</i> Cinnamon; Ceylon Cinnamon	3	1656.0

Plant	# Chemicals	Total PPM
<i>Cinnamomum camphora</i> Ho Leaf; Camphor	2	6868.0
<i>Cinnamomum aromaticum</i> Cassia Ligna; Canelle de Cochinchine (Fr.); Chinazimt (Ger.); Canelero chino (Sp.); Chinesischer Zimtbaum (Ger.); Saigon Cinnamon; Cannelier de Chine (Fr.); Cassia; Chinese Cassia; Zimtcassie (Ger.); Cassia Bark; Chinese Cinnamon; Kashia-Keihi (Jap.); Cannelier Casse (Fr.); China Junk Cassia; Canela de la China (Sp.)	1	
<i>Cistus ladaniferus</i> Rockrose; Labdanum; Gum Cistus; Ambreine	2	7840.0
<i>Citrus reticulata</i> Mandarin; Tangerine	1	152.0
<i>Citrus aurantiifolia</i> Lime	2	260.0
<i>Cleonia lusitanica</i> Spanish Heal-All	3	
<i>Coriandrum sativum</i> Cilantro; Chinese Parsley; Coriander	3	108.0
<i>Coridothymus capitatus</i> Spanish Oregano	2	
<i>Crocus sativus</i> Saffron	2	
<i>Croton lechleri</i> Sangre de Dragon; Sangre de Drago; Sangre de Grado; Dragons Blood	1	
<i>Croton eluteria</i> Cascarrilla	1	
<i>Cuminum cyminum</i> Cumin	2	348.0
<i>Cunila origanoides</i> Mountain Dittany; Dittany; Frost Flower; American Dittany; Maryland Dittany; Stone Mint; Frost Mint	1	56.0
<i>Curcuma zedoaria</i> Zedoary; Shoti	1	3840.0
<i>Curcuma xanthorrhiza</i> Javan Turmeric; Temu Lawak	1	
<i>Curcuma longa</i> Turmeric; Indian Saffron	2	10295.0
<i>Cymbopogon parkeri</i> Skhabar	1	
<i>Cymbopogon flexuosus</i> East Indian Lemongrass	1	3000.0
<i>Cymbopogon citratus</i> Lemongrass; West Indian Lemongrass	1	
<i>Cyperus rotundus</i> Nutsedge	1	
<i>Daucus carota</i> Carrot	2	48.0
<i>Diospyros virginiana</i> American Persimmon	2	
<i>Dracocephalum thymiflora</i> Thyme-Flowered Moldavica	1	268.0
<i>Echinacea</i> spp Coneflower; Echinacea	2	
<i>Echinacea purpurea</i> Echinacea; Purple-Coneflower; Eastern Purple-Coneflower	2	
<i>Echinacea pallida</i> Pale-Flower Echinacea; Echinacea; Pale Purple-Coneflower	2	
<i>Echinacea angustifolia</i> Echinacea; Narrow Leaf Echinacea; Narrow Leaf Purple-Coneflower	2	
<i>Elettaria cardamomum</i> Cardamom	2	128000.0
<i>Elsholtzia polystachya</i> Bush Mint	1	
<i>Elsholtzia pilosa</i> Hairy Mint Shrub	1	
<i>Elsholtzia densa</i>	1	
<i>Elsholtzia cristata</i> Furan Chemotype	1	
<i>Elsholtzia blanda</i> Bantaluki; Bantulsi	3	
<i>Eucalyptus viridis</i>	2	
<i>Eucalyptus tetraptera</i>	1	
<i>Eucalyptus tereticornis</i>	2	
<i>Eucalyptus stoatei</i>	1	
<i>Eucalyptus sparsa</i>	2	
<i>Eucalyptus</i> sp Gum	1	
<i>Eucalyptus sideroxylon</i>	2	
<i>Eucalyptus siderophloia</i>	2	

Plant	# Chemicals	Total PPM
<i>Eucalyptus saligna</i>	2	
<i>Eucalyptus punctata</i>	2	
<i>Eucalyptus porosa</i>	2	
<i>Eucalyptus populnea</i>	2	
<i>Eucalyptus polyanthemos</i>	2	
<i>Eucalyptus paniculata</i>	2	
<i>Eucalyptus oviformis</i>	2	
<i>Eucalyptus odorata</i>	2	
<i>Eucalyptus ochrophloia</i>	2	
<i>Eucalyptus occidentalis</i>	2	
<i>Eucalyptus nova-anglica</i> New England 'peppermint'	1	
<i>Eucalyptus moluccana</i>	2	
<i>Eucalyptus melliodora</i>	2	
<i>Eucalyptus melanophloia</i>	2	
<i>Eucalyptus maideni</i>	2	
<i>Eucalyptus maculata</i> Gum	2	
<i>Eucalyptus leucoxydon</i>	2	
<i>Eucalyptus largisparsa</i>	2	
<i>Eucalyptus lansdowneana</i>	2	
<i>Eucalyptus intertexta</i>	2	
<i>Eucalyptus incrassata</i>	1	
<i>Eucalyptus globulus</i> Blue Gum; Tasmanian Bluegum; Eucalypt	2	63000.0
<i>Eucalyptus forrestiana</i>	1	
<i>Eucalyptus fasciculosa</i>	2	
<i>Eucalyptus erythrandra</i>	1	
<i>Eucalyptus dolichorhyncha</i>	1	
<i>Eucalyptus diversicolor</i>	2	
<i>Eucalyptus desquamata</i>	2	
<i>Eucalyptus dealbata</i>	2	
<i>Eucalyptus cuprea</i>	2	
<i>Eucalyptus cladocalyx</i>	2	
<i>Eucalyptus citriodora</i> Spotted Gum; Lemon-Scented Gum; Lemon Eucalyptus; Citron-Scented Gum	2	7160.0
<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>	2	
<i>Eucalyptus astringens</i>	2	
<i>Eucalyptus angulosa</i>	1	

Plant	# Chemicals	Total PPM
<i>Eucalyptus albens</i>	2	
<i>Eupatorium triplinerve</i> Triplinerved eupatorium	2	
<i>Ferula gummosa</i> Galbanum	2	
<i>Foeniculum vulgare</i> Fennel	1	600.0
<i>Galeopsis segetum</i> Downy Hemp Nettle	1	
<i>Gardenia jasminoides</i> Shan-Chih-Tzu; Zhi Zi; Cape Jasmine; Jasmin; Gardenia; Shan-Zhi-Zi	1	
<i>Glechoma hederacea</i> Alehoof	3	92.0
<i>Harpagophytum procumbens</i> Devil's Claw; Grapple Plant	1	
<i>Hedeoma reverchonii</i> Reverchon's Pennyroyal	2	5950.0
<i>Hedeoma pulegioides</i> American Pennyroyal	1	60.0
<i>Hedeoma hispida</i> Hispid Pennyroyal	2	616.0
<i>Hedeoma drummondii</i> Drummond's Pennyroyal	2	12284.0
<i>Helianthus annuus</i> Girasol; Sunflower	2	
<i>Hibiscus sabdariffa</i> Rosa de Jamaica (Sp.); Jamaica Sorrel; Rosella (Ger.); Indian Sorrel; Red Sorrel; Sereni (Sp.); Malventee (Ger.); Kharkadi; Sorrel; Acedera de Guinea (Sp.); Roselle	1	
<i>Houttuynia cordata</i> Yu Xing Cao; Dokudami; Fishwort	1	
<i>Hypericum perforatum</i> Goatweed; Klamath Weed; Hypericum; Common St. Johnswort; St. John's-wort	2	
<i>Hyptis suaveolens</i> Wild Hops	2	9110.0
<i>Hyssopus officinalis</i> Hyssop	3	1228.0
<i>Illicium verum</i> Star Anise; anis estrellado (Sp.); anis de China (Sp.); Sternanis (Ger.); Chinese Star Anise; Chinesischer Sternanis (Ger.)	1	7000.0
<i>Isanthus brachiatus</i> False Pennyroyal	1	
<i>Juniperus sabina</i> Sabine	1	
<i>Juniperus communis</i> Common Juniper; Juniper	2	80.0
<i>Kaempferia galanga</i> Maraba; Galanga	1	
<i>Lantana camara</i> Lantana; Wild Sage	1	
<i>Larrea tridentata</i> Chaparral; Creosote Bush	1	
<i>Laurus nobilis</i> Sweet Bay; Bayleaf; Laurel; Bay; Grecian Laurel; Bay Laurel	3	39800.0
<i>Lavandula x intermedia</i> Dutch Lavender; Lavandin	3	3564.0
<i>Lavandula x hybrida</i> Hybrid Lavender	2	
<i>Lavandula latifolia</i> Broad-Leaved Lavender; Aspic; Spike Lavender	3	8538.0
<i>Lavandula angustifolia</i> English Lavender	3	13500.0
<i>Leonotis leonurus</i> Lion's Ear	1	
<i>Lepechinia calycina</i> Epling's Lepechinia	2	1980.0
<i>Levisticum officinale</i> Lovage	2	
<i>Lindera benzoin</i> Benjamin Bush; Spicebush; Fieberstrauch (Ger.); Wild Allspice	2	
<i>Lippia alba</i> White Lippia	1	
<i>Liquidambar styraciflua</i> American Styrax; Sweetgum	2	
<i>Litsea glaucescens</i> Mexican bay	1	
<i>Lycopus virginicus</i> Bugle	1	36.0
<i>Magnolia denudata</i> Xin-Yi; Hsin-I	2	
<i>Matricaria recutita</i> Wild Camomile; Annual Camomile; German Camomile	2	
<i>Melaleuca sp</i> Tea-Tree	1	

Plant	# Chemicals	Total PPM
Melaleuca cajuputi Vietnamese Cajuput Oil	1	
Melaleuca alternifolia Teatree	1	
Mentha x piperita Peppermint	1	4390.0
Mentha spicata Spearmint; Hortela da Folha Miuda	2	18750.0
Mentha pulegium European Pennyroyal	1	40.0
Mentha longifolia Biblical Mint	3	24710.0
Mentha arvensis var. piperascens Field Mint; Cornmint; Japanese Mint	1	
Mentha aquatica Water Mint	1	
Micromeria varia Madeiran 'Hyssop'	1	
Micromeria thymifolia	1	
Micromeria teneriffae	3	
Micromeria myrtifolia Haydarotu; Topukcayi; Dagcayi	1	
Micromeria fruticosa Zopha; Tea Hyssop; Zuta	2	
Micromeria croatica	2	
Micromeria congesta Kaya Yarpuzu	1	
Moldavica thymiflora Thyme-Flowered Moldavica	1	
Monarda russeliana Russel's Monarda	1	650.0
Monarda punctata Horsemint	2	20526.0
Monarda media Mean Monarda	2	3054.0
Monarda lindheimeri Lindheimer's Monarda	2	1080.0
Monarda fistulosa Wild Bergamot	2	12182.0
Monarda didyma Beebalm; Oswego Tea	3	8918.0
Monarda clinopodia Clinopod Bergamot	2	3994.0
Monarda citriodora Lemon Mint	2	1598.0
Murraya koenigii Curry Leaf Tree; Indian Curry Tree; Curry Leaf	1	
Myristica fragrans Mace; nuez moscada (Sp.); Nutmeg; Muskatnussbaum (Ger.); nogal moscado (Sp.)	1	9120.0
Myrtus communis Myrtle; Mirto (Sp.); Myrte (Ger.); Arrayan (Sp.)	3	4166.0
Nepeta racemosa Catmint	1	
Nicotiana tabacum Tobacco	1	
Ocimum tenuiflorum Anise-Scented Basil	2	
Ocimum kilimandscharicum Kenyan Perennial Basil; African Blue Basil	2	
Ocimum gratissimum Shrubby Basil; Agbo	2	
Ocimum canum Hoary Basil	1	
Ocimum basilicum Basil; Sweet Basil; Cuban Basil	2	911.0
Origanum vulgare Pot Marjoram; Wild Oregano; European Oregano; Wild Marjoram; Oregano; Common Turkish Oregano	3	696.0
Origanum syriacum Za'Atar	1	
Origanum sipyleum Bayircayi; Guveyoto	2	
Origanum onites Pot Marjoram; Oregano	3	676.0
Origanum minutiflorum Small-Flowered Oregano	1	
Origanum majorana Sweet Marjoram; Marjoram	1	
Peumus boldus Boldo	2	80100.0
Picea glauca White Spruce	1	

Plant	# Chemicals	Total PPM
<i>Pimenta racemosa</i> West Indian Bay; Bayrum Tree	1	1360.0
<i>Pimenta dioica</i> Allspice; Clover-Pepper; Jamaica-Pepper; Pimenta; Pimento	1	102.0
<i>Pinus walliciana</i> Bhutan Pine	1	
<i>Pinus sylvestris</i> Scotch Pine	3	350.0
<i>Pinus mugo</i> Dwarf Pine; Swiss Mountain Pine	1	
<i>Pinus elliottii</i> Slash Pine	1	
<i>Piper nigrum</i> Pepper; White Pepper; Black Pepper	2	
<i>Piper cubeba</i> Cubeb Pepper; Cubeb	1	2800.0
<i>Piper auritum</i> Cordoncillo; Hoja Santa; Hierba Santa	2	
<i>Plectranthus coleoides</i>	2	
<i>Prunella vulgaris</i> Heal-All; Self-Heal	1	
<i>Pycnanthemum virginianum</i> Virginia Mountain Mint	2	986.0
<i>Pycnanthemum verticillatum</i> Whorled Mountain Mint	1	84.0
<i>Pycnanthemum torreyi</i> Torrey's Mountain Mint	1	20.0
<i>Pycnanthemum tenuifolium</i> Slenderleaf Mountain Mint	3	4400.0
<i>Pycnanthemum setosum</i> Setose Mountain Mint	2	14694.0
<i>Pycnanthemum pycnanthemoides</i> Typical Mountain Mint	2	464.0
<i>Pycnanthemum pilosum</i> Pilose Mountain Mint	1	140.0
<i>Pycnanthemum muticum</i> Muticous Mountain Mint	2	2800.0
<i>Pycnanthemum montanum</i> Montane Mountain Mint	2	1488.0
<i>Pycnanthemum loomisii</i> Loomis' Mountain Mint	2	52164.0
<i>Pycnanthemum incanum</i> Hoary Mountain Mint	2	266.0
<i>Pycnanthemum clinopodioides</i> Clinopod Mountain Mint	1	176.0
<i>Pycnanthemum californicum</i> California Mountain Mint	1	1152.0
<i>Pycnanthemum beadleii</i> Beadle's Mountain Mint	2	140.0
<i>Pycnanthemum albescens</i> White Mountain Mint	1	540.0
<i>Ravensara aromatica</i> Ravensara	1	
<i>Ribes nigrum</i> Black Currant	1	
<i>Rosmarinus x mendizabalii</i> Mendizabali's Rosemary	3	
<i>Rosmarinus x lavandulaceus</i> Lavender Rosemary	3	
<i>Rosmarinus tomentosus</i> Hairy Rosemary	3	
<i>Rosmarinus officinalis</i> Rosemary	3	34832.0
<i>Rosmarinus eriocalyx</i> Rosemary	3	
<i>Salvia triloba</i> Greek Sage	1	37200.0
<i>Salvia sclarea</i> Clary Sage	1	
<i>Salvia officinalis</i> Sage	3	30136.0
<i>Salvia dorisiana</i> 'Honduran' Sage	1	
<i>Salvia canariensis</i> Canary Island Sage	2	
<i>Santalum album</i> White Sandalwood	1	
<i>Sassafras albidum</i> Sassafras	1	
<i>Satureja thymbra</i> Goat Oregano	2	
<i>Satureja subspicata</i> Yugoslav Savory	3	

Plant	# Chemicals	Total PPM
<i>Satureja parvifolia</i> Small-Leaf Pampa Savory	1	
<i>Satureja odora</i> Scented Pampa Savory	1	
<i>Satureja obovata</i> Iberian Savory; Savory	1	
<i>Satureja montana</i> Savory; Winter Savory	3	
<i>Satureja hortensis</i> Summer Savory	3	
<i>Satureja douglasii</i> Douglas' Savory	2	2210.0
<i>Satureja cuneifolia</i> Cuneate Turkish Savory	2	
<i>Satureja cilicica</i> Turkish Savory	1	
<i>Scrophularia scorodonia</i>	1	
<i>Scrophularia buergeriana</i> Yuan-Shen; Hsuan-Shen	1	
<i>Sideritis pauli</i> El Molinillo Sideritis	1	
<i>Sideritis mugronensis</i>	2	
<i>Sideritis germanicolpitana</i>	1	
<i>Sideritis athoa</i> Kedi Kuyrugu Cayi	2	
<i>Stachys officinalis</i> Betony; Bishop's-Wort; Wood Betony; Purple Betony	1	
<i>Stachys germanica</i> Downy Woundwort	1	96.0
<i>Stevia rebaudiana</i> Stevia; Ca-A-E; Sweet Leaf of Paraguay	2	
<i>Tagetes minuta</i> Mexican Marigold; Muster John Henry; Wild Marigold; Stinking-Roger; Aztec Marigold; Dwarf Marigold	1	250.0
<i>Tagetes lucida</i> Sweet-Scent Mexican Marigold; Anise Marigold; Sweet-Scent Marigold; Sweet-Mace	1	
<i>Tagetes erecta</i> Marigold; Aztec Marigold	1	86.0
<i>Tanacetum vulgare</i> Tansy	3	2600.0
<i>Tanacetum parthenium</i> Feverfew	3	
<i>Telosma cordata</i> Merrill flowers	1	
<i>Teucrium scorodonia</i> Germander; Wood Germander	2	
<i>Teucrium salviastrum</i>	2	
<i>Teucrium pseudoscorodonia</i>	2	
<i>Teucrium polium</i> Golden Germander	4	
<i>Teucrium oxylepis</i>	2	
<i>Teucrium micropodioides</i> Small 'Cyprus' Germander	2	
<i>Teucrium kotschyianum</i> Stavros Kotschy's Germander	2	
<i>Teucrium gnaphalodes</i> Iberian Germander	1	
<i>Teucrium divaricatum</i> Hoary Divaricate Germander	2	
<i>Teucrium cyprium</i> 'Cyprus' Germander	2	
<i>Teucrium chamaedrys</i> Wall Germander	2	110.0
<i>Teucrium asiaticum</i>	2	
<i>Teucrium arduini</i> 'Croatian Alpine' Germander	1	
<i>Thuja occidentalis</i> Northern White-Cedar; Arbor-Vitae	2	
<i>Thymus zygis</i> Spanish Thyme	3	
<i>Thymus x citriodorus</i> Funk's thyme; Lemon Thyme	3	
<i>Thymus vulgaris</i> Common Thyme; Garden Thyme; Thyme	2	4263.0
<i>Thymus serpyllum</i> Creeping Thyme	3	1222.0
<i>Thymus saturejoides</i> Moroccan Savory Thyme	2	

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<i>Thymus riatarum</i> 'Moroccan' Thyme	2	
<i>Thymus orospedanus</i> Orosped Thyme	2	2066.0
<i>Thymus mastichina</i> Spanish Marjoram	3	15740.0
<i>Thymus longicaulis</i> Tas Kekik; Kekik	2	
<i>Thymus funkii</i> Funk's Thyme	3	
<i>Thymus cillicicus</i> 'Anatolian' Thyme	2	
<i>Thymus capitatus</i> Spanish Origanum; Spanish Thyme; 'Sicilian' Thyme	3	720.0
<i>Thymus broussonettii</i> Moroccan Thyme	2	
<i>Turnera diffusa</i> Damiana	1	2200.0
<i>Umbellularia californica</i> California Bay	1	18720.0
<i>Vaccinium corymbosum</i> Blueberry	1	
<i>Valeriana officinalis</i> Garden-Heliotrope; Common Valerian; Valerian	3	
<i>Verbascum thapsus</i> Mullein; Flannelleaf; Great Mullein; Velvetplant; Flannelplant	1	
<i>Vetiveria zizanioides</i> Cus-Cus; Cuscus Grass; Vetiver	1	
<i>Vitex agnus-castus</i> Chaste-Tree	2	
<i>Zea mays</i> Corn	1	
<i>Zingiber officinale</i> Ginger	3	5700.0