

# List of Plants



## Chemid

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\*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   |
|-------------------------|----------|---------|----------|--------|--|
| Abelmoschus moschatus   | Seed     | 2000.0  | 6000.0   | -0.47  | *  |
| Abies sachalinensis     | Branches | 16000.0 | 18000.0  | 1.3    | *  |
| Abies spectabilis       | Leaf     | --      | 5000.0   | -0.57  | *  |
| Abies balsamea          | Leaf     | 6500.0  | 14000.0  | 0.22   | *  |
| Abies alba              | Leaf     | 2500.0  | 3500.0   | -0.71  | *  |
| Acacia farnesiana       | Flower   | 5000.0  | 50000.0  | 1.24   | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Acanthospermum hispidum | Plant    | --      | 2000.0   | -0.59  | Wealth of India.   |
| Achillea millefolium    | Plant    | 177.0   | 14000.0  | 0.32   | *  |
| Achillea millefolium    | Leaf     | 250.0   | 16000.0  | 0.39   | *  |
| Achillea millefolium    | Flower   | 700.0   | 5000.0   | -0.26  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Achillea moschata       | Plant    | 3000.0  | 6000.0   | -0.28  | *  |
| Acinos alpinus          | Shoot    | --      | 500.0    | -0.91  | 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    | --      | 6400.0   | -0.36  | Tumen, G. 1991. The Volatile Constituents of Acinos suaveolens (Sibt. et Smith). G. Don fil. Growing in Turkey. J. Ess. Oil Res. 3:191-2.  |
| Acinos alpinus          | Shoot    | --      | 500.0    | -0.91  | 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          | Leaf     | --      | 2000.0   | -0.84  | *  |
| Acorus calamus          | Rhizome  | 10000.0 | 100000.0 | 0.8    | *  |
| Acorus calamus          | Shoot    | --      | 1200.0   | -0.84  | *  |
| Actaea racemosa         | Plant    | 1000.0  | 4000.0   | -0.44  | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.  |
| Aegle marmelos          | Leaf     | --      | 6000.0   | -0.49  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Aeolanthus myriantha    | Flower   | --      | 20200.0  | 0.25   | Wealth of India.   |
| Aethusa cynapium        | Plant    | --      | 150.0    | -0.73  | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |
| Aframomum melegueta     | Seed     | 3000.0  | 80000.0  | 0.46   | *  |
| Agastache pallidiflora  | Flower   | 1550.0  | 3160.0   | -0.32  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Agastache nepetoides    | Plant    | --      | 500.0    | -0.7   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |

|                             |                |         |         |       |  |
|-----------------------------|----------------|---------|---------|-------|--|
| Agastache urticifolia       | Plant          | --      | 6500.0  | -0.25 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Agastache pallidiflora      | Leaf           | --      | 830.0   | -0.94 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Agastache foeniculum        | Plant          | 1000.0  | 12500.0 | 0.21  | *  |
| Agathosma betulina          | Leaf           | 10000.0 | 35000.0 | 2.06  | *  |
| Ageratum conyzoides         | Plant          | 200.0   | 1600.0  | -0.62 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| Agrimonia eupatoria         | Plant          | --      | 2000.0  | -0.59 | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Alliaria petiolata          | Seed           | 5000.0  | 9600.0  | -0.43 | *  |
| Alliaria petiolata          | Root           | 330.0   | 930.0   | -0.61 | *  |
| Alliaria petiolata          | Plant          | 50.0    | 520.0   | -0.7  | *  |
| Allium sativum var. sativum | Bulb           | 600.0   | 19800.0 | 1.16  | *  |
| Allium sativum var. sativum | Root           | 370.0   | 4000.0  | -0.47 | *  |
| Allium cepa                 | Bulb           | 50.0    | 150.0   | -1.29 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| Aloysia citrodora           | Plant          | 700.0   | 7000.0  | -0.21 | *  |
| Alpinia officinarum         | Rhizome        | 3000.0  | 10000.0 | -0.53 | *  |
| Alpinia galanga             | Rhizome        | 400.0   | 48000.0 | 0.03  | *  |
| Alpinia galanga             | Leaf           | --      | 10000.0 | -0.14 | *  |
| Althaea officinalis         | Leaf           | --      | 200.0   | -1.0  | Wealth of India.   |
| Althaea officinalis         | Flower         | --      | 200.0   | -0.42 | Wealth of India.   |
| Althaea officinalis         | Root           | 54.0    | 2000.0  | -0.56 | *  |
| Ammi visnaga                | Seed           | 200.0   | 300.0   | -0.55 | *  |
| Amomum xanthioides          | Seed           | 15000.0 | 30000.0 | -0.17 | *  |
| Amomum compactum            | Seed           | --      | 24000.0 | -0.25 | 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.                         |
| Anaphalis margaritacea      | Plant          | --      | --      |       | *  |
| Anethum graveolens          | Seed           | 12000.0 | 77000.0 | 0.42  | *  |
| Anethum graveolens          | Plant          | 5600.0  | 15000.0 | 0.4   | *  |
| Anethum graveolens          | Leaf           | 1640.0  | 15000.0 | 0.3   | *  |
| Anethum graveolens          | Fruit          | 12000.0 | 77000.0 | 0.68  | *  |
| Anethum graveolens          | Shoot          | --      | --      |       | *  |
| Anethum graveolens          | Root           | 300.0   | 500.0   | -0.63 | Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.          |
| Angelica archangelica       | Seed           | 2000.0  | 38000.0 | -0.07 | *  |
| Angelica sinensis           | Shoot          | --      | --      |       | Jim Duke's personal files.   |
| Angelica archangelica       | Root           | 1000.0  | 19000.0 | 0.24  | *  |
| Angelica sinensis           | Root           | 880.0   | 7000.0  | -0.33 | *  |
| Angelica sinensis           | Tissue Culture | --      | --      |       | Jim Duke's personal files.   |
| Anisochilus carnosus        | Leaf           | --      | 11900.0 | 0.03  | Wealth of India.   |

|                           |         |         |          |       |  |
|---------------------------|---------|---------|----------|-------|--|
| Anisomeles malabarica     | Leaf    | --      | 250.0    | -0.99 | Wealth of India.   |
| Anisomeles malabarica     | Flower  | --      | 700.0    | -0.4  | Wealth of India.   |
| Anisomeles malabarica     | Stem    | --      | 50.0     | -0.49 | Wealth of India.   |
| Anisomeles malabarica     | Root    | --      | 50.0     | -0.65 | Wealth of India.   |
| Anthriscus cerefolium     | Seed    | --      | 9000.0   | -0.44 | *  |
| Anthriscus cerefolium     | Plant   | --      | 300.0    | -0.72 | *  |
| Apium graveolens          | Fruit   | 42000.0 | 200000.0 | 3.07  | *  |
| Apium graveolens          | Seed    | 4200.0  | 30000.0  | -0.17 | *  |
| Apocynum androsaemifolium | Root    | --      | 160.0    | -0.65 | *  |
| Aralia cordata            | Stem    | --      | 750.0    | -0.46 | *  |
| Arctium lappa             | Root    | 600.0   | 7500.0   | -0.3  | Wealth of India.   |
| Arctium lappa             | Leaf    | --      | 285.0    | -0.99 | Wealth of India.   |
| Ardisia japonica          | Plant   | 1000.0  | 2000.0   | -0.59 | *  |
| Aristolochia serpentaria  | Plant   | --      | --       |       | *  |
| Armoracia rusticana       | Plant   | 200.0   | 3050.0   | -0.51 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Armoracia rusticana       | Root    | 500.0   | 2160.0   | -0.55 | *  |
| Arnica montana            | Rhizome | 5000.0  | 63100.0  | 0.25  | *  |
| Arnica montana            | Flower  | 400.0   | 1400.0   | -0.38 | *  |
| Arnica montana            | Root    | 17700.0 | 37400.0  | 1.11  | *  |
| Artemisia pallens         | Plant   | 1300.0  | 5800.0   | -0.3  | *  |
| Artemisia cina            | Bud     | 20000.0 | 30000.0  | -0.13 | *  |
| Artemisia absinthium      | Leaf    | 2500.0  | 17000.0  | 0.48  | *  |
| Artemisia dracunculus     | Leaf    | --      | --       |       | *  |
| Artemisia vulgaris        | Root    | --      | 1000.0   | -0.61 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Artemisia herba-alba      | Plant   | --      | 2900.0   | -0.52 | *  |
| Artemisia capillaris      | Plant   | 1000.0  | 2300.0   | -0.57 | *  |
| Artemisia abrotanum       | Plant   | 1800.0  | 21000.0  | 0.86  | *  |
| Artemisia salsoloides     | Shoot   | --      | 5000.0   | -0.49 | V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Artemisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305. |
| Artemisia vulgaris        | Plant   | 260.0   | 2000.0   | -0.59 | *  |
| Artemisia dracunculus     | Shoot   | 1000.0  | 10000.0  | -0.03 | *  |
| Artemisia dracunculus     | Plant   | 1000.0  | 10000.0  | 0.02  | *  |
| Artemisia annua           | Leaf    | 1400.0  | 40000.0  | 2.5   | *  |
| Asarum canadense          | Rhizome | 35000.0 | 45000.0  | -0.02 | *  |
| Asiasarum sieboldii       | Root    | 20000.0 | 30000.0  | 0.76  | *  |
| Astragalus gummifer       | Gum     | 20000.0 | 30000.0  | -1.0  | *  |

|                            |                     |          |          |       |  |
|----------------------------|---------------------|----------|----------|-------|--|
| Atractylodes lancea        | Rhizome             | 50000.0  | 90000.0  | 0.65  | *  |
| Azadirachta indica         | Stem Bark           | --       | 200.0    | -1.0  | *  |
| Ballota nigra              | Plant               | --       | 300.0    | -0.72 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Barosma betulina           | Leaf                | 15000.0  | 35000.0  | 2.06  | *  |
| Betula lenta               | Bark                | 2300.0   | 6000.0   | -0.44 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Betula lenta               | Bud                 | 40000.0  | 60000.0  | 1.28  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Bixa orellana              | Seed                | 755.0    | 844.0    | -0.54 | *  |
| Bixa orellana              | Leaf                | --       | 4000.0   | -0.66 | Wealth of India.   |
| Boronia megastigma         | Flower              | 4000.0   | 8000.0   | -0.16 | *  |
| Boswellia serrata          | Resin, Exudate, Sap | --       | 160000.0 | 0.17  | Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp. |
| Boswellia sacra            | Latex Exudate       | 30000.0  | 100000.0 |       | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.   |
| Brassica oleracea          | Stem                | --       | 190.0    | -0.49 | *  |
| Brassica nigra             | Seed                | 7000.0   | 12000.0  | -0.4  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Brassica juncea            | Seed                | 4500.0   | 30900.0  | -0.16 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Bursera delpechiana        | Wood                | 25000.0  | 120000.0 | 2.32  | *  |
| Calamintha nepeta          | Plant               | --       | 6000.0   | -0.28 | J. Ethnopharmacology, 39: 167.   |
| Calamintha nepeta          | Shoot               | --       | 4500.0   | -0.54 | Kirimer, N., Baser, K.H.C., Ozek, T. and Kurkcuoglu, M. 1992. Composition of the Essential Oil of Calamintha nepeta subsp. glandulosa. J. Ess. Oil Res. 4:189-190  |
| Calamintha nepeta          | Leaf                | --       | 8000.0   | -0.31 | Akgul, A., De Pooter, H.L., and De Buyck, L.F. 1991. The Essential Oils of Calamintha nepeta subsp. glandulosa and Ziziphora clinopodioides from Turkey. J. Ess. Oil Res., 3: 7-10.                              |
| Calendula officinalis      | Flower              | 200.0    | 4000.0   | -0.29 | *  |
| Camellia sinensis          | Leaf                | 30.0     | 10000.0  | -0.14 | *  |
| Cananga odorata            | Flower              | 5000.0   | 25000.0  | 0.41  | *  |
| Canarium indicum           | Gum                 | 100000.0 | 250000.0 | -0.27 | *  |
| Cannabis sativa            | Bud                 | 1300.0   | 8000.0   | -1.16 | *  |
| Capsicum annum             | Fruit               | 1290.0   | 5000.0   | -0.72 | *  |
| Capsicum frutescens        | Fruit               | --       | 16000.0  | -0.51 | *  |
| Carica papaya              | Seed                | --       | 900.0    | -0.54 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Carum carvi                | Seed                | 20000.0  | 82000.0  | 0.49  | *  |
| Carum carvi                | Fruit               | 30000.0  | 70000.0  | 0.54  | *  |
| Carum carvi                | Plant               | --       | 10000.0  | 0.02  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Cassia marilandica         | Plant               | --       | --       |       | *  |
| Caulophyllum thalictroides | Root                | --       | --       |       | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Cedrus libani              | Wood                | 35000.0  | 60000.0  | 0.48  | *  |
| Cedrus deodora             | Wood                | --       | 25000.0  | -0.6  | *  |
| Centella asiatica          | Leaf                | 321.0    | 6000.0   | -0.49 | *  |
| Centella asiatica          | Plant               | 3000.0   | 6000.0   | -0.28 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.  |

|                            |               |        |         |       |  |
|----------------------------|---------------|--------|---------|-------|--|
| Chamaemelum nobile         | Plant         | 6000.0 | 17500.0 | 0.59  | *  |
| Chelidonium majus          | Plant         | --     | 130.0   | -0.73 | *  |
| Chenopodium ambrosioides   | Fruit         | 1830.0 | 25000.0 | -0.33 | *  |
| Chenopodium ambrosioides   | Leaf          | 2000.0 | 3000.0  | -0.75 | *  |
| Chrysanthemum x morifolium | Flower        | --     | 1400.0  | -0.38 | Wealth of India.   |
| Chrysanthemum parthenium   | Plant         | 200.0  | 700.0   | -0.69 | *  |
| Chrysanthemum parthenium   | Shoot         | --     | 1500.0  | -0.81 | 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 balsamita    | Plant         | --     | 600.0   | -0.69 | *  |
| Chrysanthemum x morifolium | Shoot         | 400.0  | 1500.0  | -0.81 | Wealth of India.   |
| Cimicifuga racemosa        | Root          | 210.0  | 4000.0  | -0.47 | *  |
| Cimicifuga racemosa        | Plant         | 1000.0 | 4000.0  | -0.44 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.  |
| Cinchona spp               | Bark          | --     | 50.0    | -0.96 | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| Cinchona pubescens         | Bark          | --     | 50.0    | -0.96 | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| Cinnamomum verum           | Leaf          | 5000.0 | 12000.0 | 0.04  | *  |
| Cinnamomum aromaticum      | Leaf          | 3100.0 | 7700.0  | -0.34 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Cinnamomum camphora        | Leaf          | 5000.0 | 10000.0 | -0.14 | *  |
| Cinnamomum verum           | Root Bark     | --     | --      |       | *  |
| Cinnamomum aromaticum      | Bark          | 2000.0 | 25000.0 | 1.22  | *  |
| Cinnamomum verum           | Stem Bark     | --     | --      |       | *  |
| Cinnamomum verum           | Bark          | 3500.0 | 40000.0 | 2.53  | *  |
| Cissampelos pareira        | Root          | --     | 2000.0  | -0.56 | *  |
| Cistus ladaniferus         | Essential Oil | 1000.0 | 70000.0 | 1.07  | *  |
| Citrus paradisi            | Leaf          | --     | 1800.0  | -0.86 | *  |
| Citrus sinensis            | Fruit         | 7500.0 | 10000.0 | -0.63 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Citrus limon               | Pericarp      | --     | 2600.0  | -1.16 | *  |
| Citrus aurantium           | Leaf          | --     | 3000.0  | -0.75 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                 |
| Citrus mitis               | Leaf          | 9000.0 | 10600.0 | -0.08 | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.   |
| Citrus reticulata          | Fruit         | 7500.0 | 10000.0 | -0.63 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Citrus limon               | Pt            | 2000.0 | 6000.0  | 1.0   | *  |
| Citrus aurantium           | Fruit         | 7000.0 | 25000.0 | -0.33 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                 |
| Citrus paradisi            | Fruit         | 6000.0 | 10000.0 | -0.63 | *  |
| Citrus paradisi            | Pericarp      | 3700.0 | 10000.0 | -0.12 | *  |

|                               |                     |          |          |       |  |
|-------------------------------|---------------------|----------|----------|-------|--|
| <i>Citrus aurantiifolia</i>   | Plant               | 3000.0   | 10000.0  | 0.02  | *  |
| <i>Citrus aurantiifolia</i>   | Pt                  | --       | 3100.0   | -1.0  | *  |
| <i>Citrus aurantium</i>       | Flower              | 1000.0   | 5000.0   | -0.26 | *  |
| <i>Citrus sinensis</i>        | Pericarp            | 15000.0  | 20000.0  | 1.28  | *  |
| <i>Cleonia lusitanica</i>     | Leaf                | --       | 500.0    | -0.97 | Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of <i>Cleonia lusitanica</i> . J. Ess. Oil Res., 3: 441-442.  |
| <i>Cnicus benedictus</i>      | Plant               | --       | 3000.0   | -0.51 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Cnidium officinale</i>     | Rhizome             | 10000.0  | 20000.0  | -0.38 | *  |
| <i>Coffea arabica</i>         | Seed                | 1000.0   | 2000.0   | -0.53 | *  |
| <i>Collinsonia canadensis</i> | Plant               | --       | 500.0    | -0.7  | *  |
| <i>Commiphora myrrha</i>      | Resin, Exudate, Sap | 15000.0  | 170000.0 | 0.29  | *  |
| <i>Conium maculatum</i>       | Plant               | --       | 10000.0  | 0.02  | *  |
| <i>Conyza canadensis</i>      | Plant               | 2600.0   | 6000.0   | -0.28 | *  |
| <i>Copaifera spp</i>          | Gum                 | 300000.0 | 900000.0 | 1.9   | *  |
| <i>Coriandrum sativum</i>     | Seed                | --       | --       |       | *  |
| <i>Coriandrum sativum</i>     | Leaf                | --       | 10000.0  | -0.14 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Coriandrum sativum</i>     | Fruit               | 2000.0   | 26000.0  | -0.31 | *  |
| <i>Coriandrum sativum</i>     | Seed Essent. Oil    | 100.0    | 14900.0  | -1.0  | *  |
| <i>Coriaria myrtifolia</i>    | Leaf                | --       | --       |       | *  |
| <i>Coridothymus capitatus</i> | Shoot               | --       | 22000.0  | 1.08  | 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. |
| <i>Crataegus laevigata</i>    | Fruit               | 279.0    | 2500.0   | -0.77 | *  |
| <i>Crocus sativus</i>         | Silk Stigma Style   | 3700.0   | 13700.0  | 1.0   | *  |
| <i>Croton eluteria</i>        | Bark                | 15000.0  | 30000.0  | 1.66  | *  |
| <i>Cuminum cyminum</i>        | Fruit               | 20000.0  | 50000.0  | 0.15  | *  |
| <i>Cuminum cyminum</i>        | Seed                | 20000.0  | 50000.0  | 0.08  | *  |
| <i>Cunila origanoides</i>     | Shoot               | --       | 28000.0  | 1.64  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Curcuma longa</i>          | Leaf                | --       | 4100.0   | -0.65 | *  |
| <i>Curcuma longa</i>          | Rhizome             | 3000.0   | 72000.0  | 0.38  | *  |
| <i>Curcuma zedoaria</i>       | Rhizome             | 10000.0  | 15000.0  | -0.46 | *  |
| <i>Curcuma xanthorrhiza</i>   | Rhizome             | 30000.0  | 295000.0 | 3.67  | *  |
| <i>Curcuma longa</i>          | Plant               | 15500.0  | 80000.0  | 5.34  | *  |
| <i>Cymbopogon winterianus</i> | Plant               | 4000.0   | 7000.0   | -0.21 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Cymbopogon martinii</i>    | Plant               | 1000.0   | 5000.0   | -0.36 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Cymbopogon citratus</i>    | Plant               | 2000.0   | 30000.0  | 1.54  | *  |
| <i>Cymbopogon parkeri</i>     | Plant               | --       | 15500.0  | 0.44  | Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.  |

|                                   |                  |         |          |       |  |
|-----------------------------------|------------------|---------|----------|-------|--|
| <i>Cymbopogon martinii</i>        | Flower           | 4500.0  | 13700.0  | 0.03  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                           |
| <i>Cymbopogon nardus</i>          | Plant            | 3000.0  | 12000.0  | 0.17  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                           |
| <i>Cymbopogon flexuosus</i>       | Leaf             | 2500.0  | 5000.0   | -0.57 | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.                       |
| <i>Cyperus rotundus</i>           | Root             | 5000.0  | 10000.0  | -0.18 | *  |
| <i>Cypripedium pubescens</i>      | Root             | --      | --       |       | *  |
| <i>Datura stramonium</i>          | Leaf             | --      | 450.0    | -0.98 | *  |
| <i>Daucus carota</i>              | Shoot            | --      | 4000.0   | -0.58 | *  |
| <i>Daucus carota</i>              | Seed             | 4000.0  | 8000.0   | -0.45 | *  |
| <i>Daucus carota</i>              | Root             | --      | 4000.0   | -0.47 | *  |
| <i>Dianthus caryophyllus</i>      | Flower           | 30.0    | 2900.0   | -0.33 | *  |
| <i>Dictamnus albus</i>            | Shoot            | --      | 7200.0   | -0.29 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2 |
| <i>Dictamnus albus</i>            | Shoot            | --      | 7200.0   | -0.29 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2 |
| <i>Dictamnus albus</i>            | Leaf             | --      | 1500.0   | -0.88 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                           |
| <i>Dictamnus albus</i>            | Shoot            | --      | 5500.0   | -0.44 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2 |
| <i>Dictamnus albus</i>            | Flower           | --      | 500.0    | -0.41 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                           |
| <i>Dracocephalum parviflora</i>   | Plant            | --      | 1000.0   | -0.66 | *  |
| <i>Dracocephalum thymiflora</i>   | Plant            | --      | 2000.0   | -0.59 | *  |
| <i>Drimys winteri</i>             | Bark             | --      | 10000.0  | -0.09 | *  |
| <i>Dryopteris filix-mas</i>       | Rhizome          | 80.0    | 400.0    | -0.67 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                           |
| <i>Echinacea</i> spp              | Leaf             | 100.0   | 6000.0   | -0.49 | Economic & Medicinal Plant Research, 5: 253.   |
| <i>Echinacea purpurea</i>         | Shoot            | 900.0   | 3200.0   | -0.66 | Jim Duke's personal files.   |
| <i>Echinacea pallida</i>          | Root             | 2000.0  | 23000.0  | 0.43  | *  |
| <i>Echinacea</i> spp              | Flower           | 600.0   | 6000.0   | -0.22 | Economic & Medicinal Plant Research, 5: 253.   |
| <i>Echinacea angustifolia</i>     | Root             | 400.0   | 13000.0  | -0.04 | *  |
| <i>Echinacea pallida</i>          | Flower           | --      | 2800.0   | -0.33 | Jim Duke's personal files.   |
| <i>Echinacea</i> spp              | Root             | 50.0    | 40000.0  | 1.23  | *  |
| <i>Echinacea purpurea</i>         | Flower           | 1300.0  | 4800.0   | -0.26 | Jim Duke's personal files.   |
| <i>Echinacea purpurea</i>         | Root             | 628.0   | 2500.0   | -0.54 | *  |
| <i>Echinacea pallida</i>          | Shoot            | 500.0   | 1000.0   | -0.86 | Jim Duke's personal files.   |
| <i>Elaeagnus angustifolia</i>     | Shoot            | --      | --       |       | Isaev, V. 1932. Essential Oils of the Flora of Tadshikistan. <i>Acta Hortii Bot Tadshikistan</i> 1932: 17-.  |
| <i>Elaeagnus angustifolia</i>     | Flower           | --      | 1000.0   | -0.39 | *  |
| <i>Elettaria cardamomum</i>       | Seed Essent. Oil | --      | 64500.0  | 1.0   | *  |
| <i>Elettaria cardamomum</i>       | Fruit            | 25000.0 | 100000.0 | 1.12  | *  |
| <i>Eleutherococcus senticosus</i> | Fruit            | --      | 5000.0   | -0.72 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |

|                            |         |         |         |       |   |
|----------------------------|---------|---------|---------|-------|---|
| Eleutherococcus senticosus | Stem    | --      | 2600.0  | -0.36 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| Eleutherococcus senticosus | Root    | --      | 8000.0  | -0.28 | *   |
| Eleutherococcus senticosus | Leaf    | --      | 3100.0  | -0.74 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| Elsholtzia polystachya     | Leaf    | --      | 2000.0  | -0.84 | 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 patrini         | Plant   | 1000.0  | 2500.0  | -0.55 | Chemical Constituents of Oriental Herbs (3 diff. books)   |
| Elsholtzia ciliata         | Plant   | 1000.0  | 2500.0  | -0.55 | Chemical Constituents of Oriental Herbs (3 diff. books)   |
| Elsholtzia polystachya     | Leaf    | --      | 2000.0  | -0.84 | 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 eriostachya     | Shoot   | --      | 1000.0  | -0.86 | Pant, A.K., Dev, V., Parihar, R., Mathela,C.S., Rauscher, J., Vostrowsky, O. and Bestmann, H.J. 1992. The Essential Oil from Elsholtzia eriostachya var. pusilla. J. Ess. Oil Res. 4: 547-549.  |
| Elsholtzia pilosa          | Shoot   | --      | 2000.0  | -0.77 | *   |
| Elsholtzia cristata        | Shoot   | --      | 4000.0  | -0.58 | Kobold, U., Vostrowsky, O., Bestmann, H.J., Bisht, J.C., Pant, A.K., Melkani, A.B. and Mathela, C.S. 1987. Terpenoids from Elsholtzia Species; II. Constituents of Essential Oil from a New Chemotype of Elsholtzia cristata. Planta Medica 1987: 268-271.      |
| Elsholtzia blanda          | Shoot   | --      | 1300.0  | -0.83 | Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev, V., Parihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of Elsholtzia blanda Benth. (Labiatae). J. Ess. Oils Res. 4: 121-124   |
| Elytrigia repens           | Rhizome | 100.0   | 520.0   | -0.67 | *   |
| Ephedra sinica             | Plant   | 1000.0  | 4000.0  | -0.44 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.   |
| Eryngium foetidum          | Plant   | 200.0   | 400.0   | -0.71 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Erythroxylum coca          | Leaf    | 200.0   | 1300.0  | -0.9  | *   |
| Eucalyptus maculata        | Shoot   | --      | 10400.0 | 0.01  | 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   | --      | 12000.0 | 0.16  | 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 forrestiana     | Leaf    | --      | 33200.0 | 1.91  | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus citriodora      | Shoot   | --      | 10500.0 | 0.02  | 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    | --      | 5400.0  | -0.54 | 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 bridgesiana     | Leaf    | --      | 27000.0 | 1.36  | Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Volatile Constituents of the Essential Oil of Eucalyptus bridgesiana Growing in India. Journal of Essential Oil Res. 3: 449-450.  |
| Eucalyptus sparsa          | Leaf    | --      | 50400.0 | 3.42  | 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        | Leaf    | 5000.0  | 35000.0 | 2.06  | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.  |
| Eucalyptus nova-anglica    | Leaf    | 14000.0 | 24000.0 | 1.1   | Brophy, J. L., Lassak, E. V., & Boland, D. J. 1992. The Leaf Essential Oils of Eucalyptus nova-anglica. Deane & Maiden. Journal of Essential Oil Res. 4: 29-32.   |
| Eucalyptus astringens      | Shoot   | --      | 17300.0 | 0.65  | 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.  |



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|--------------------------------|-------|--------|---------|-------|---|
| <i>Eucalyptus albens</i>       | Shoot | --     | 1800.0  | -0.79 | 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 sideroxylon</i>  | Shoot | --     | 5500.0  | -0.44 | 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 tetraptera</i>   | Leaf  | --     | 20400.0 | 0.78  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| <i>Eucalyptus punctata</i>     | Shoot | --     | 15700.0 | 0.5   | 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 leucoxylon</i>   | Leaf  | --     | 11000.0 | -0.05 | 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 | --     | 6900.0  | -0.31 | 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 viridis</i>      | Leaf  | --     | 1000.0  | -0.93 | 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  | --     | 21200.0 | 0.85  | 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 melliodora</i>   | Shoot | --     | 16800.0 | 0.6   | 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 incrassata</i>   | Leaf  | --     | 28400.0 | 1.48  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| <i>Eucalyptus dealbata</i>     | Shoot | --     | 6700.0  | -0.33 | 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 ochrophloia</i>  | Leaf  | --     | 900.0   | -0.94 | 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 erythrandra</i>  | Leaf  | --     | 14300.0 | 0.24  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| <i>Eucalyptus ceratocorys</i>  | Leaf  | --     | 12300.0 | 0.07  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| <i>Eucalyptus cuprea</i>       | Leaf  | --     | 12700.0 | 0.1   | 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 brassiana</i>    | Leaf  | --     | 6800.0  | -0.42 | 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.   |
| <i>Eucalyptus populnea</i>     | Leaf  | --     | 3600.0  | -0.7  | 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 citriodora</i>   | Leaf  | 5000.0 | 20000.0 | 0.74  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| <i>Eucalyptus bosistoana</i>   | Shoot | --     | 14700.0 | 0.41  | 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 siderophloia</i> | Shoot | --     | 2800.0  | -0.69 | 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.  |

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|----------------------------------|-------|----|---------|-------|---|
| <i>Eucalyptus tereticornis</i>   | Shoot | -- | 4500.0  | -0.54 | 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 polyanthemus</i>   | Shoot | -- | 2900.0  | -0.68 | 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 fasciculosa</i>    | Leaf  | -- | 2600.0  | -0.79 | 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 occidentalis</i>   | Shoot | -- | 6600.0  | -0.34 | 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 desquamata</i>     | Leaf  | -- | 30900.0 | 1.7   | 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 lansdowneana</i>   | Leaf  | -- | 4800.0  | -0.59 | 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 maideni</i>        | Shoot | -- | 14300.0 | 0.37  | 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 globulus</i>       | Shoot | -- | 21200.0 | 1.01  | 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 cladocalyx</i>     | Shoot | -- | 2400.0  | -0.73 | 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 intertexta</i>     | Leaf  | -- | 11000.0 | -0.05 | 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 dolichorhyncha</i> | Leaf  | -- | 12500.0 | 0.08  | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| <i>Eucalyptus camaldulensis</i>  | Shoot | -- | 7200.0  | -0.29 | 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 largisparsa</i>    | Leaf  | -- | 9200.0  | -0.21 | 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 botryoides</i>     | Shoot | -- | 3200.0  | -0.66 | 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 blakelyi</i>       | Shoot | -- | 20500.0 | 0.94  | 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 angulosa</i>       | Leaf  | -- | 2600.0  | -0.79 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| <i>Eucalyptus citriodora</i>     | Plant | -- | --      |       | *   |
| <i>Eucalyptus stoatei</i>        | Leaf  | -- | 26000.0 | 1.27  | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| <i>Eucalyptus saligna</i>        | Shoot | -- | 3900.0  | -0.59 | 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 paniculata</i>     | Shoot | -- | 1000.0  | -0.86 | 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 melanophloia</i>   | Leaf           | --      | 1600.0   | -0.87 | 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>Symphomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364 |
| <i>Eucalyptus odorata</i>        | Leaf           | --      | 8800.0   | -0.24 | 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>Symphomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364 |
| <i>Eucalyptus moluccana</i>      | Shoot          | --      | 12000.0  | 0.16  | 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>Eugenia brasiliensis</i>      | Leaf           | --      | 15000.0  | 0.3   | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.  |
| <i>Eugenia brasiliensis</i>      | Bark           | --      | 15000.0  | 0.34  | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.  |
| <i>Euodia rutaecarpa</i>         | Fruit          | --      | 20000.0  | -0.43 | *   |
| <i>Eupatorium triplinerve</i>    | Plant          | --      | 6000.0   | -0.28 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Euphrasia officinalis</i>     | Plant          | 1500.0  | 2000.0   | -0.59 | *   |
| <i>Ferula jaeschkeana</i>        | Fruit          | --      | 38000.0  | -0.08 | *   |
| <i>Ferula alliacea</i>           | Fruit          | --      | 9000.0   | -0.65 | *   |
| <i>Ferula sumbul</i>             | Plant          | --      | 10000.0  | 0.02  | *   |
| <i>Ferula gummosa</i>            | Gum            | 50000.0 | 300000.0 | -0.1  | *   |
| <i>Ferula jaeschkeana</i>        | Root           | --      | 12000.0  | -0.09 | *   |
| <i>Ferula assa-foetida</i>       | Gum            | 30000.0 | 170000.0 | -0.53 | *   |
| <i>Ficus carica</i>              | Leaf           | --      | 700.0    | -0.95 | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.   |
| <i>Foeniculum vulgare</i>        | Root           | 5000.0  | 7000.0   | -0.33 | *   |
| <i>Foeniculum vulgare</i>        | Tissue Culture | --      | --       |       | Jim Duke's personal files.  |
| <i>Foeniculum vulgare</i>        | Plant          | --      | 10000.0  | 0.02  | *   |
| <i>Foeniculum vulgare</i>        | Seed           | 2160.0  | 60000.0  | 0.21  | *   |
| <i>Foeniculum vulgare</i>        | Fruit          | 10000.0 | 80000.0  | 0.73  | *   |
| <i>Fragaria spp</i>              | Plant          | --      | --       |       | *   |
| <i>Galeopsis tetrahit</i>        | Shoot          | --      | 400.0    | -0.92 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Galipea officinalis</i>       | Bark           | 10000.0 | 20000.0  | 0.78  | *   |
| <i>Gardenia jasminoides</i>      | Flower         | --      | 700.0    | -0.4  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| <i>Gaultheria fragrantissima</i> | Shoot          | 1200.0  | 12000.0  | 0.16  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| <i>Gaultheria procumbens</i>     | Leaf           | 5500.0  | 8000.0   | -0.31 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Gelsemium sempervirens</i>    | Root           | --      | 5000.0   | -0.42 | *   |
| <i>Genista tinctoria</i>         | Shoot          | --      | 300.0    | -0.93 | *   |
| <i>Ginkgo biloba</i>             | Wood           | --      | 50000.0  | 0.17  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Glechoma hederacea</i>        | Plant          | 100.0   | 600.0    | -0.69 | *   |

|                                  |        |         |         |       |   |
|----------------------------------|--------|---------|---------|-------|---|
| <i>Glycyrrhiza uralensis</i>     | Root   | --      | 50.0    | -0.65 | Isaev, V. 1932. Essential Oils of the Flora of Tadshikistan. Acta Hortii Bot Tadshikistan 1932: 17-.  |
| <i>Glycyrrhiza glabra</i>        | Root   | 400.0   | 590.0   | -0.63 | *   |
| <i>Grindelia squarrosa</i>       | Plant  | --      | 3000.0  | -0.51 | *   |
| <i>Guaiacum</i> sp.              | Wood   | 50000.0 | 60000.0 | 0.48  | *   |
| <i>Hamamelis virginiana</i>      | Leaf   | --      | 5000.0  | -0.57 | *   |
| <i>Hedeoma pulegioides</i>       | Plant  | 6000.0  | 30000.0 | 1.54  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Hedeoma hispida</i>           | Plant  | --      | 2000.0  | -0.59 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Hedeoma pulegioides</i>       | Shoot  | 6000.0  | 10000.0 | -0.03 | *   |
| <i>Hedeoma reverchonii</i>       | Plant  | --      | 10000.0 | 0.02  | *   |
| <i>Hedeoma drummondii</i>        | Plant  | --      | 10000.0 | 0.02  | *   |
| <i>Hedychium flavum</i>          | Shoot  | --      | 10000.0 | -0.03 | *   |
| <i>Helianthus annuus</i>         | 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.              |
| <i>Helichrysum angustifolium</i> | Plant  | 750.0   | 2000.0  | -0.59 | *   |
| <i>Hemidesmus indicus</i>        | Root   | 1600.0  | 2250.0  | -0.55 | *   |
| <i>Houttuynia cordata</i>        | Plant  | --      | 5000.0  | -0.36 | *   |
| <i>Houttuynia cordata</i>        | Shoot  | --      | --      |       | *   |
| <i>Humulus lupulus</i>           | Seed   | 10000.0 | 30000.0 | -0.17 | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.   |
| <i>Humulus lupulus</i>           | Flower | 2000.0  | 10000.0 | -0.09 | *   |
| <i>Humulus lupulus</i>           | Fruit  | 3000.0  | 10000.0 | -0.63 | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.   |
| <i>Hyacinthus orientalis</i>     | Flower | 160.0   | 2300.0  | -0.35 | *   |
| <i>Hydrangea arborescens</i>     | Root   | --      | --      |       | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Hypericum perforatum</i>      | Seed   | --      | 3300.0  | -0.51 | Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.  |
| <i>Hypericum perforatum</i>      | Plant  | 500.0   | 9000.0  | -0.06 | *   |
| <i>Hypericum perforatum</i>      | Flower | --      | 2500.0  | -0.34 | *   |
| <i>Hypericum perforatum</i>      | Shoot  | 700.0   | 1250.0  | -0.84 | *   |
| <i>Hyptis suaveolens</i>         | Shoot  | --      | 2500.0  | -0.72 | Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321. |
| <i>Hyptis suaveolens</i>         | Plant  | --      | 15000.0 | 0.4   | Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 74.   |
| <i>Hyptis suaveolens</i>         | Shoot  | --      | 2500.0  | -0.72 | Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321. |
| <i>Hyptis emoryi</i>             | Plant  | --      | 4000.0  | -0.44 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Hyssopus officinalis</i>      | Shoot  | --      | 10000.0 | -0.03 | *   |

|                      |         |         |          |       |  |
|----------------------|---------|---------|----------|-------|--|
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | --       |       | *  |
| Hyssopus officinalis | Shoot   | --      | 14000.0  | 0.34  | 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   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Plant   | 300.0   | 20000.0  | 0.78  | *  |
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | 10000.0  | -0.03 | *  |
| Hyssopus officinalis | Shoot   | --      | 14000.0  | 0.34  | 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. |
| Ilex paraguariensis  | Leaf    | --      | 3000.0   | -0.75 | *  |
| Illicium verum       | Seed    | --      | 25000.0  | -0.23 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| Illicium verum       | Leaf    | --      | 10000.0  | -0.14 | *  |
| Illicium verum       | Fruit   | 50000.0 | 100000.0 | 1.12  | *  |
| Inula helenium       | Plant   | 5700.0  | 54000.0  | 3.36  | *  |
| Inula helenium       | Fruit   | 10000.0 | 40000.0  | -0.04 | *  |
| Iris x germanica     | Rhizome | 1000.0  | 20000.0  | -0.38 | *  |
| Isanthus brachiatus  | Plant   | --      | 1000.0   | -0.66 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Jasminum officinale  | Flower  | 2400.0  | 3800.0   | -0.3  | *  |
| Jateorhiza palmata   | Root    | 700.0   | 15000.0  | 0.05  | *  |
| Juglans regia        | Leaf    | 100.0   | 300.0    | -0.99 | *  |
| Juniperus macropoda  | Fruit   | 6600.0  | 20400.0  | -0.42 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Juniperus sabina     | Shoot   | 30000.0 | 50000.0  | 3.67  | *  |
| Juniperus oxycedrus  | Fruit   | 13000.0 | 15000.0  | -0.53 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Juniperus communis   | Leaf    | --      | --       |       | *  |
| Juniperus oxycedrus  | Wood    | --      | 15000.0  | -0.9  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Juniperus communis   | Fruit   | 6200.0  | 40000.0  | -0.04 | *  |
| Juniperus virginiana | Wood    | 15000.0 | 45000.0  | 0.02  | *  |
| Juniperus oxycedrus  | Leaf    | --      | 100.0    | -1.01 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Juniperus virginiana | Leaf    | --      | 2000.0   | -0.84 | *  |
| Lagochilus inebrians | Plant   | 300.0   | 2000.0   | -0.59 | *  |
| Lantana camara       | Shoot   | --      | 1000.0   | -0.86 | *  |
| Lantana camara       | Leaf    | 500.0   | 3200.0   | -0.73 | *  |
| Lantana camara       | Flower  | --      | 700.0    | -0.4  | *  |

|                         |                     |          |          |       |  |
|-------------------------|---------------------|----------|----------|-------|--|
| Larrea tridentata       | Plant               | 329.0    | 2500.0   | -0.55 | *  |
| Laurus nobilis          | Wood                | --       | 700.0    | -1.34 | *  |
| Laurus nobilis          | Bark                | --       | 6800.0   | -0.37 | *  |
| Laurus nobilis          | Leaf                | --       | 5700.0   | -0.51 | *  |
| Laurus nobilis          | Flower              | --       | 1800.0   | -0.36 | *  |
| Laurus nobilis          | Fruit               | 10000.0  | 40000.0  | -0.04 | *  |
| Lavandula angustifolia  | Flower              | 3000.0   | 40000.0  | 0.91  | *  |
| Lavandula x intermedia  | Plant               | 10000.0  | 18000.0  | 0.63  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lavandula x hybrida     | Shoot               | 5500.0   | 7000.0   | -0.31 | Tucker, A.O., Maciarelo, M.J., Angell, S., Espailat, 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 latifolia     | Plant               | 5000.0   | 11000.0  | 0.1   | *  |
| Lawsonia inermis        | Flower              | 100.0    | 200.0    | -0.42 | *  |
| Ledum palustre          | Leaf                | 3000.0   | 25000.0  | 1.18  | *  |
| Leonotis nepetaefolia   | Seed                | --       | 20000.0  | -0.3  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Leonotis leonurus       | Se                  | --       | --       |       | Pedro, L.G., Barroso, J.G., Marques, N.T., Ascensao, L., Pais, M.S.S. and Scheffer, J.J.C. 1991. Composition of the Essential Oil from Sepals of Leonotis leonurus R. Br. J. Ess. Oil Res. 3: 451-3                                |
| Leonurus cardiaca       | Plant               | 100.0    | 500.0    | -0.7  | *  |
| Lepechinia schiediana   | Plant               | --       | 4000.0   | -0.44 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lepechinia calycina     | Plant               | --       | 5000.0   | -0.36 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lepidium sativum        | Plant               | --       | 1150.0   | -0.65 | *  |
| Levisticum officinale   | Root                | 1000.0   | 18000.0  | 0.19  | *  |
| Levisticum officinale   | Plant               | 500.0    | 2450.0   | -0.55 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Levisticum officinale   | Seed                | 8000.0   | 11000.0  | -0.41 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Limonia acidissima      | Leaf                | --       | 7300.0   | -0.37 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Lindera benzoin         | Leaf                | --       | 200.0    | -1.0  | *  |
| Lindera benzoin         | Fruit               | 4140.0   | 4260.0   | -0.74 | *  |
| Lindera benzoin         | Twig                | --       | 700.0    | -1.0  | *  |
| Lippia alba             | Leaf                | --       | 1200.0   | -0.91 | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.  |
| Lippia javanica         | Plant               | --       | --       |       | Neidlein, R., Staehle, R. 1974. Constituents of Lippia javanica. III. Deutsche Apot. Ztit., 114: 1588.   |
| Liquidambar styraciflua | Leaf                | --       | 800.0    | -0.94 | *  |
| Liquidambar orientalis  | Resin, Exudate, Sap | 5000.0   | 10000.0  | -1.6  | *  |
| Liquidambar styraciflua | Resin, Exudate, Sap | 150000.0 | 200000.0 | 0.64  | *  |
| Litsea glaucescens      | Shoot               | 2100.0   | 2300.0   | -0.74 | Tucker, et al, EB46(1):21-24.1992  |
| Lycium chinense         | Leaf                | --       | 100.0    | -1.01 | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.                         |
| Lycopus europeus        | Plant               | 500.0    | 2000.0   | -0.59 | *  |
| Lycopus virginicus      | Plant               | 800.0    | 2000.0   | -0.59 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lycopus americanus      | Plant               | --       | 500.0    | -0.7  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |

|  |                  |         |         |       |  |
|--|------------------|---------|---------|-------|--|
| <i>Lycopus uniflorus</i>                       | Plant            | --      | 500.0   | -0.7  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Magnolia officinalis</i>                    | Bark             | 3000.0  | 10000.0 | -0.09 | *  |
| <i>Malus domestica</i>                         | Fruit            | 25.0    | 35.0    | -0.82 | *  |
| <i>Mangifera indica</i>                        | Flower           | --      | 400.0   | -0.41 | *  |
| <i>Marrubium vulgare</i>                       | Plant            | 500.0   | 600.0   | -0.69 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Marsdenia reichenbachii</i>                 | Plant            | --      | 100.0   | -0.73 | *  |
| <i>Matricaria recutita</i>                     | Flower           | 2400.0  | 20000.0 | 0.24  | *  |
| <i>Melaleuca leucadendra</i>                   | Leaf             | --      | 13000.0 | 0.13  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Melaleuca linariifolia</i>                  | Leaf             | 15000.0 | 20000.0 | 0.74  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Melaleuca alternifolia</i>                  | Leaf Essent. Oil | --      | --      |       | *  |
| <i>Melaleuca cajuputi</i>                      | Leaf             | --      | 10000.0 | -0.14 | *  |
| <i>Melaleuca viridiflora</i>                   | Leaf             | 10000.0 | 26000.0 | 1.27  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Melaleuca alternifolia</i>                  | Leaf             | 10000.0 | 25000.0 | 1.18  | *  |
| <i>Melaleuca leucadendra</i>                   | Twig             | --      | 13000.0 | 1.65  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Melaleuca bracteata</i>                     | Leaf             | 4000.0  | 10000.0 | -0.14 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Melia azedarach</i>                         | Plant            | --      | 200.0   | -0.72 | *  |
| <i>Melilotus officinalis</i>                   | Flower           | --      | 130.0   | -0.42 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Melissa officinalis</i>                     | Shoot            | 100.0   | 8000.0  | -0.21 | *  |
| <i>Mentha aquatica</i>                         | Shoot            | --      | 1100.0  | -0.85 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |
| <i>Mentha x rotundifolia</i>                   | Leaf             | 600.0   | 10000.0 | -0.14 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Mentha pulegium</i>                         | Shoot            | 3500.0  | 20000.0 | 0.9   | *  |
| <i>Mentha pulegium</i>                         | Plant            | 10000.0 | 20000.0 | 0.78  | *  |
| <i>Mentha arvensis</i> var. <i>piperascens</i> | Plant            | 10000.0 | 32100.0 | 1.7   | *  |
| <i>Mentha aquatica</i>                         | Shoot            | --      | 1700.0  | -0.8  | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |
| <i>Mentha aquatica</i>                         | Leaf             | 3000.0  | 8500.0  | -0.27 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Mentha pulegium</i>                         | Tissue Culture   | --      | --      |       | *  |
| <i>Mentha x piperita</i>                       | Plant            | 1000.0  | 40000.0 | 2.3   | *  |
| <i>Mentha longifolia</i>                       | Plant            | 10000.0 | 38000.0 | 2.15  | *  |
| <i>Mentha aquatica</i>                         | Shoot            | --      | 1100.0  | -0.85 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |
| <i>Mentha x piperita</i>                       | Leaf             | 2980.0  | 30000.0 | 1.62  | *  |
| <i>Mentha aquatica</i>                         | Shoot            | --      | 1500.0  | -0.81 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |

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|---|--------|---------|---------|-------|--|
| <i>Mentha pulegium</i>                            | Leaf   | --      | 9200.0  | -0.21 | *  |
| <i>Mentha spicata</i>                             | Leaf   | 1000.0  | 25000.0 | 1.18  | *  |
| <i>Mentha arvensis</i><br>var. <i>piperascens</i> | Plant  | --      | --      |       | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.   |
| <i>Mentha aquatica</i>                            | Shoot  | --      | 1600.0  | -0.8  | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.   |
| <i>Menyanthes trifoliata</i>                      | Leaf   | 670.0   | 700.0   | -0.95 | *  |
| <i>Mercurialis annua</i>                          | Root   | --      | 800.0   | -0.62 | *  |
| <i>Micromeria fruticosa</i>                       | Leaf   | --      | 30000.0 | 1.62  | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria teneriffae</i>                      | Leaf   | --      | 10000.0 | -0.14 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria croatica</i>                        | Leaf   | --      | 10000.0 | -0.14 | *  |
| <i>Micromeria varia</i>                           | Shoot  | --      | 3000.0  | -0.68 | 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. <i>flav. &amp; Fragr. J.</i> 10(3): 199-202. |
| <i>Micromeria juliana</i>                         | Leaf   | --      | 10000.0 | -0.14 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria fruticosa</i>                       | Shoot  | --      | 24000.0 | 1.27  | Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. <i>Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res</i> 3: 477-479.              |
| <i>Micromeria congesta</i>                        | Leaf   | --      | 10000.0 | -0.14 | *  |
| <i>Micromeria myrtifolia</i>                      | Shoot  | --      | 300.0   | -0.93 | Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of <i>Micromeria myrtifolia</i> Boiss. et Hohen. <i>J. Ess. Oil Res.</i> , 4: 79-80.   |
| <i>Micromeria fruticosa</i>                       | Shoot  | --      | 24000.0 | 1.27  | Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. <i>Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res</i> 3: 477-479.              |
| <i>Micromeria thymifolia</i>                      | Leaf   | --      | 10000.0 | -0.14 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria dalmatica</i>                       | Leaf   | --      | 10000.0 | -0.14 | *  |
| <i>Micromeria varia</i>                           | Shoot  | --      | 3000.0  | -0.68 | *  |
| <i>Minthostachys mollis</i>                       | Shoot  | 700.0   | 900.0   | -0.87 | Alkire, B.H., Tucker, A.O., and Maciarelo, M.J. 1994. Tipo ( <i>Minthostachys mollis</i> (Lamiaceae): An Ecuadorian Mint. <i>Econ. Bot.</i> 48(1): 60-64.  |
| <i>Mitracarpus scaber</i>                         | Shoot  | --      | 400.0   | -0.92 | I. Laakso, T.O.E. Ekpendu, A.A. Adesomoju, O. Eundayo, J. I. Okogun, (1993); Constituents of the volatile oil of <i>Mitracarpus scaber</i> Zucc., <i>Flavour Fragr. J.</i> , Vol 8, 269-271.   |
| <i>Moldavica parviflora</i>                       | Plant  | --      | 1000.0  | -0.66 | Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>  |
| <i>Moldavica thymiflora</i>                       | Plant  | --      | 2000.0  | -0.59 | Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>  |
| <i>Monarda citriodora</i>                         | Flower | --      | 10000.0 | -0.09 | 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. <i>J. Ess. Oil Res.</i> 6: 27-9.              |
| <i>Monarda punctata</i>                           | Plant  | 10000.0 | 30000.0 | 1.54  | *  |
| <i>Monarda fistulosa</i>                          | Plant  | 3000.0  | 31000.0 | 1.62  | Guenther, E., <i>The Essential Oils</i> , 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Monarda didyma</i>                             | Flower | --      | 3700.0  | -0.3  | <i>Flavour and Fragrance Journal</i> , 6: 80.  |
| <i>Monarda media</i>                              | Plant  | --      | 7000.0  | -0.21 | *  |
| <i>Monarda didyma</i>                             | Shoot  | 1000.0  | 10000.0 | -0.03 | *  |
| <i>Monarda clinopodia</i>                         | Plant  | --      | 10000.0 | 0.02  | *  |



|                          |          |         |          |       |  |
|--------------------------|----------|---------|----------|-------|--|
| Monarda citriodora       | Shoot    | --      | 10000.0  | -0.03 | *  |
| Monarda citriodora       | Leaf     | --      | 7000.0   | -0.4  | 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 russeliana       | Plant    | --      | 10000.0  | 0.02  | *  |
| Monarda lindheimeri      | Plant    | --      | 10000.0  | 0.02  | *  |
| Monarda didyma           | Leaf     | 7000.0  | 13000.0  | 0.13  | *  |
| Murraya koenigii         | Leaf     | 2300.0  | 26000.0  | 1.27  | *  |
| Myrica cerifera          | Bark     | 436.0   | 4000.0   | -0.62 | *  |
| Myrica cerifera          | Plant    | 2000.0  | 4000.0   | -0.44 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.  |
| Myristica fragrans       | Seed     | 20000.0 | 160000.0 | 1.47  | *  |
| Myristica fragrans       | Aril     | 40000.0 | 150000.0 |       | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Myristica fragrans       | Leaf     | 4100.0  | 6200.0   | -0.47 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Myristica fragrans       | Bark     | --      | 1400.0   | -0.84 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Myroxylon balsamum       | Gum      | --      | --       |       | *  |
| Myrtus communis          | Plant    | 1667.0  | 5900.0   | -0.29 | *  |
| Myrtus communis          | Leaf     | 1000.0  | 5000.0   | -0.57 | *  |
| Narcissus tazetta        | Flower   | 2100.0  | 4500.0   | -0.27 | *  |
| Nardostachys jatamansi   | Root     | 19000.0 | 20000.0  | 0.29  | *  |
| Nardostachys chinensis   | Rhizome  | 10000.0 | 32000.0  | -0.21 | *  |
| Nasturtium officinale    | Plant    | 600.0   | 660.0    | -0.69 | *  |
| Nepeta racemosa          | Shoot    | --      | 11000.0  | 0.07  | 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    | --      | 11000.0  | 0.07  | 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 cilicia           | Shoot    | --      | 1000.0   | -0.86 | *  |
| Nepeta cataria           | Plant    | 2000.0  | 13000.0  | 0.25  | Bourrel, C., Perineau, F., Michel, G., Bessiere, J.M. 1993. Catnip (Nepeta cataria L.) Essential Oil: Analysis of Chemical Constituents, Bacteriostatic and Fungistatic Properties. J. Ess. Oil Res., 5: 159-167.          |
| Nerium oleander          | Flower   | --      | 300.0    | -0.41 | *  |
| Nigella sativa           | Seed     | 4000.0  | 16000.0  | -0.35 | *  |
| Nigella sativa           | Seed Oil | --      | 4500.0   |       | *  |
| Ocimum sanctum           | Leaf     | 6000.0  | 7000.0   | -0.4  | *  |
| Ocimum kilimandscharicum | Flower   | 19600.0 | 28000.0  | 0.51  | Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.   |
| Ocimum gratissimum       | Stem     | --      | 1400.0   | -0.42 | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of Ocimum gratissimum L. J. Ess. Oil Res. 4: 231-234.   |
| Ocimum gratissimum       | Plant    | 1000.0  | 6000.0   | -0.28 | *  |
| Ocimum tenuiflorum       | Leaf     | 1000.0  | 9000.0   | -0.22 | *  |
| Ocimum kilimandscharicum | Shoot    | 5000.0  | 10000.0  | -0.03 | Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.   |
| Ocimum basilicum         | Plant    | --      | 2500.0   | -0.55 | Die Nahrung. Pino, J., Rosado, A., Goire, I., Roncal, E., and Garcia, I. 1993. Analysis of the Essential Oil from Cuban Basil. Die Nahrung 37: (5): 501-504.   |
| Ocimum gratissimum       | Leaf     | 12000.0 | 14700.0  | 0.28  | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of Ocimum gratissimum L. J. Ess. Oil Res. 4: 231-234.   |

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|--------------------------|---------------------|---------|---------|-------|--|
| Ocimum canum             | Shoot               | 3800.0  | 6500.0  | -0.35 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Ocimum gratissimum       | Shoot               | --      | 21000.0 | 0.99  | 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 basilicum         | Shoot               | --      | --      |       | *  |
| Ocimum suave             | Shoot               | --      | 4000.0  | -0.58 | J. Nat. Prod. 44: 308.   |
| Ocimum kilimandscharicum | Leaf                | 7700.0  | 11200.0 | -0.03 | Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum kilimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.  |
| Ocimum basilicum         | Plant               | --      | 2500.0  | -0.55 | Die Nahrung. Pino, J., Rosado, A., Goire, I., Roncal, E., and Garcia, I. 1993. Analysis of the Essential Oil from Cuban Basil. Die Nahrung 37: (5): 501-504.   |
| Ocimum gratissimum       | Flower              | 13400.0 | 16700.0 | 0.13  | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of Ocimum gratissimum L. J. Ess. Oil Res. 4: 231-234.   |
| Ocimum gratissimum       | Seed                | --      | 2700.0  | -0.52 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Oenanthe aquatica        | Fruit               | 10000.0 | 25000.0 | -0.33 | *  |
| Ononis spinosa           | Root                | 200.0   | 2000.0  | -0.56 | *  |
| Opopanax chironium       | Resin, Exudate, Sap | 30000.0 | 65000.0 | -0.95 | *  |
| Origanum vulgare         | Shoot               | --      | 4800.0  | -0.51 | Isaev, V. 1932. Essential Oils of the Flora of Tadshikistan. Acta Hortii Bot Tadshikistan 1932: 17-.   |
| Origanum majorana        | Plant               | 3000.0  | 30000.0 | 1.54  | *  |
| Origanum vulgare         | Shoot               | --      | 45000.0 | 3.21  | 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 minutiflorum    | Shoot               | 22400.0 | 24400.0 | 1.31  | 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 syriacum        | Shoot               | --      | 31000.0 | 1.92  | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.   |
| Origanum sipyleum        | Shoot               | --      | 17000.0 | 0.62  | 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 onites          | Shoot               | --      | 25000.0 | 1.36  | 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 vulgare         | Plant               | --      | 1300.0  | -0.64 | 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 majorana        | Essential Oil       | --      | --      |       | *  |
| Origanum creticum        | Plant               | 14000.0 | 30000.0 | 1.54  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Origanum vulgare         | Plant               | --      | 400.0   | -0.71 | 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 syriacum        | Shoot               | --      | 31000.0 | 1.92  | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.   |
| Origanum sipyleum        | Shoot               | --      | 2200.0  | -0.75 | 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 vulgare         | Plant               | 1500.0  | 10000.0 | 0.02  | *  |
| Origanum onites          | Shoot               | --      | 33000.0 | 2.1   | 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               | --      | 34000.0 | 1.84  | 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.                          |

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|--------------------------------|-------------|---------|---------|-------|--|
| <i>Origanum syriacum</i>       | Shoot       | --      | 31000.0 | 1.92  | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.  |
| <i>Origanum sipyleum</i>       | Shoot       | --      | 16800.0 | 0.6   | Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.   |
| <i>Origanum sipyleum</i>       | Shoot       | --      | 17000.0 | 0.62  | Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.   |
| <i>Origanum vulgare</i>        | Plant       | --      | 800.0   | -0.68 | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.   |
| <i>Paeonia suffruticosa</i>    | Root Bark   | 1500.0  | 4000.0  |       | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| <i>Paeonia officinalis</i>     | Root        | --      | 4000.0  | -0.47 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Paeonia lactiflora</i>      | Root        | --      | --      |       | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| <i>Panax quinquefolius</i>     | Root        | --      | --      |       | *  |
| <i>Panax ginseng</i>           | Root        | 100.0   | 500.0   | -0.63 | *  |
| <i>Passiflora edulis</i>       | Fruit Juice | 23.0    | 43.0    |       | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Pavonia odorata</i>         | Root        | --      | 5000.0  | -0.42 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Pelargonium graveolens</i>  | Plant       | 800.0   | 4000.0  | -0.44 | *  |
| <i>Pelargonium citrosum</i>    | Shoot       | --      | 2000.0  | -0.77 | Matsuda, B. M., et al. 1996. Essential Oil Analysis and Field Evaluation of the Citrosa Plant ' <i>Pelargonium citrosum</i> ' as a Repellent Against Populations of <i>Aedes</i> Mosquitoes. J. Am. Mosq. Contr. Assoc. 12(1):69-74. |
| <i>Pelargonium roseum</i>      | Shoot       | --      | 18000.0 | 0.71  | *  |
| <i>Perilla frutescens</i>      | Stem        | --      | 500.0   | -0.47 | Janicki, J., Tobolewicz, I. 1953. <i>Perilla ocymoides</i> -A Raw material for the Production of Natural Oils. Przem Rolny Spozyw, 7: 56-.   |
| <i>Perilla frutescens</i>      | Plant       | 1000.0  | 13000.0 | 0.25  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Perilla frutescens</i>      | Leaf        | --      | 10400.0 | -0.1  | Janicki, J., Tobolewicz, I. 1953. <i>Perilla ocymoides</i> -A Raw material for the Production of Natural Oils. Przem Rolny Spozyw, 7: 56-.   |
| <i>Persea americana</i>        | Leaf        | 5000.0  | 31000.0 | 1.71  | *  |
| <i>Petasites hybridus</i>      | Leaf        | --      | 1000.0  | -0.93 | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.  |
| <i>Petroselinum crispum</i>    | Seed        | 15000.0 | 70000.0 | 0.33  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| <i>Petroselinum crispum</i>    | Root        | 500.0   | 5000.0  | -0.42 | *  |
| <i>Petroselinum crispum</i>    | Fruit       | --      | 600.0   | -0.81 | *  |
| <i>Petroselinum crispum</i>    | Leaf        | 600.0   | 3000.0  | -0.75 | *  |
| <i>Petroselinum crispum</i>    | Plant       | 40.0    | 3000.0  | -0.51 | *  |
| <i>Peucedanum ostruthium</i>   | Root        | 2000.0  | 14000.0 | 0.0   | *  |
| <i>Peumus boldus</i>           | Leaf        | 16000.0 | 30000.0 | 1.62  | *  |
| <i>Phellodendron amurense</i>  | Fruit       | --      | --      |       | *  |
| <i>Picea mariana</i>           | Twig        | --      | 4610.0  | -0.15 | *  |
| <i>Picea glauca</i>            | Twig        | --      | 3000.0  | -0.5  | *  |
| <i>Pilocarpus jaborandi</i>    | Leaf        | --      | 5000.0  | -0.57 | *  |
| <i>Pilocarpus microphyllus</i> | Leaf        | 2500.0  | 3000.0  | -0.75 | *  |

|                        |                     |          |          |       |   |
|------------------------|---------------------|----------|----------|-------|---|
| Pimenta dioica         | Leaf                | 7500.0   | 12500.0  | 0.08  | *   |
| Pimenta dioica         | Fruit               | 20000.0  | 50000.0  | 0.15  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Pimenta racemosa       | Leaf                | 7500.0   | 39000.0  | 2.42  | *   |
| Pimpinella anisum      | Plant               | 10000.0  | 60000.0  | 3.82  | *   |
| Pimpinella anisum      | Seed                | 6100.0   | 140000.0 | 1.22  | *   |
| Pimpinella anisum      | Tissue Culture      | --       | --       |       | *   |
| Pinellia ternata       | Tuber               | 30.0     | 130.0    |       | *   |
| Pinus strobus          | Root                | --       | --       |       | *   |
| Pinus sylvestris       | Leaf                | 2000.0   | 5000.0   | -0.57 | *   |
| Pinus mugo             | Leaf                | 1200.0   | 6100.0   | -0.48 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.  |
| Pinus palustris        | Resin, Exudate, Sap | 200000.0 | 250000.0 | 1.23  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.  |
| Pinus elliottii        | Resin, Exudate, Sap | 200000.0 | 250000.0 | 1.23  | *   |
| Pinus palustris        | Leaf                | --       | 4000.0   | -0.66 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| Pinus sylvestris       | Root                | --       | --       |       | *   |
| Pinus elliottii        | Leaf                | --       | 3000.0   | -0.75 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| Pinus walliciana       | Leaf                | --       | 5000.0   | -0.57 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Piper betel            | Leaf                | 2000.0   | 42000.0  | 2.68  | *   |
| Piper nigrum           | Fruit               | --       | 15000.0  | -0.53 | *   |
| Piper auritum          | Leaf                | 4700.0   | 5800.0   | -0.5  | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.  |
| Piper cubeba           | Fruit Essent. Oil   | --       | 118500.0 |       | *   |
| Piper cubeba           | Fruit               | 50000.0  | 200000.0 | 3.07  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Piper angustifolium    | Leaf                | 9000.0   | 35000.0  | 2.06  | *   |
| Pistacia lentiscus     | Leaf                | 10000.0  | 30000.0  | 1.62  | *   |
| Plantago major         | Plant               | --       | 2000.0   | -0.59 | *   |
| Plectranthus incanus   | Shoot               | --       | 3500.0   | -0.63 | Shah, G.C., Bhandari, R. & Mathela, C.S. 1992. 1,2-Epoxy-p-Menthane Derivatives from some Labiatae Species. J. Ess. Oil Res. 4: 57-59.  |
| Plectranthus coleoides | Shoot               | --       | 6000.0   | -0.4  | Buchbauer, G., Jorovetz, L., Wasicky, M. and Nikiforov, A. 1993. Volatile Constituents of the Headspace and Essential Oil of Plectranthus coleoides Marginatus (Labiatae). J. Ess. Oil Res. 5: 311-313. |
| Podophyllum hexandrum  | Rhizome             | 2590.0   | 5550.0   | -0.6  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Pogostemon cablin      | Plant               | 15000.0  | 58000.0  | 3.67  | *   |
| Polianthes tuberosa    | Flower              | 800.0    | 15000.0  | 0.08  | *   |
| Populus tacamahacca    | Bulb                | --       | 20000.0  | 1.18  | *   |
| Populus nigra          | Bulb                | --       | 5000.0   | -0.68 | *   |
| Porophyllum ruderale   | Plant               | 3000.0   | 4500.0   | -0.4  | 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.                                    |
| Prunella vulgaris      | Plant               | --       | 5000.0   | -0.36 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Prunus dulcis          | Seed                | 5000.0   | 18000.0  | -0.32 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Prunus serotina        | Stem Bark           | --       | 2000.0   | 1.0   | *   |

|                              |                  |         |          |       |  |
|------------------------------|------------------|---------|----------|-------|--|
| Prunus cerasus               | Seed             | --      | 10000.0  | -0.42 | *  |
| Prunus laurocerasus          | Leaf             | --      | 500.0    | -0.97 | *  |
| Prunus armeniaca             | Seed             | 8000.0  | 16000.0  | -0.35 | *  |
| Psidium guajava              | Leaf             | 2600.0  | 3600.0   | -0.7  | *  |
| Psoralea corylifolia         | Seed             | 500.0   | 200000.0 | 1.98  | *  |
| Pteridium aquilinum          | Rhizome          | --      | 1800.0   | -0.65 | *  |
| Pterocarpus santalinus       | Wood             | --      | --       |       | *  |
| Ptychopetalum olacoides      | Wood             | --      | 500.0    | -1.35 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Pueraria montana             | Leaf Essent. Oil | --      | 120.0    |       | *  |
| Pycnanthemum verticillatum   | Shoot            | --      | 21000.0  | 0.99  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum setosum         | Shoot            | 20000.0 | 31000.0  | 1.92  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum montanum        | Shoot            | 7000.0  | 8000.0   | -0.21 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum flexuosum       | Shoot            | --      | 12000.0  | 0.16  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum pilosum         | Flower           | 39000.0 | 58000.0  | 1.51  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum californicum    | Shoot            | --      | 36000.0  | 2.38  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum torreyi         | Shoot            | --      | 10000.0  | -0.03 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum pycnanthemoides | Shoot            | 39000.0 | 58000.0  | 4.42  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum loomisii        | Shoot            | 31000.0 | 42000.0  | 2.93  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum curvipes        | Shoot            | --      | 21000.0  | 0.99  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum nudum           | Shoot            | 25000.0 | 26000.0  | 1.45  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum beadleii        | Shoot            | --      | 7000.0   | -0.31 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum virginianum     | Shoot            | 6000.0  | 29000.0  | 1.73  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum tenuifolium     | Shoot            | 2000.0  | 20000.0  | 0.9   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum pilosum         | Leaf             | 39000.0 | 58000.0  | 4.09  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum incanum         | Shoot            | 11000.0 | 19000.0  | 0.81  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum clinopodioides  | Shoot            | 21000.0 | 22000.0  | 1.08  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pycnanthemum muticum         | Shoot            | 29000.0 | 50000.0  | 3.67  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Quassia amara                | Root             | --      | --       |       | *  |
| Quercus alba                 | Bark             | 100.0   | 500.0    | -0.92 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.                                    |
| Ravensara aromatica          | Leaf             | --      | 20000.0  | 0.74  | *  |
| Ravensara aromatica          | Bark             | --      | 22000.0  | 0.96  | *  |
| Rheum palmatum               | Rhizome          | --      | 500.0    | -0.67 | *  |
| Rheum rhabarbarum            | Root             | --      | --       |       | *  |
| Ribes nigrum                 | Leaf             | --      | 200.0    | -1.0  | *  |

|                            |                |         |         |       |   |
|----------------------------|----------------|---------|---------|-------|---|
| Ribes nigrum               | Bulb           | --      | 7500.0  | -0.37 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Robinia pseudoacacia       | Leaf           | --      | 100.0   | -1.01 | *   |
| Rosa centifolia            | Flower         | --      | 2000.0  | -0.36 | *   |
| Rosa canina                | Seed           | 2000.0  | 3000.0  | -0.51 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Rosa gallica               | Flower         | 270.0   | 360.0   | -0.41 | *   |
| Rosa damascena             | Flower         | 250.0   | 500.0   | -0.41 | *   |
| Rosmarinus tomentosus      | Shoot          | 8000.0  | 9900.0  | -0.04 | 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          | --      | 5400.0  | -0.45 | Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.  |
| Rosmarinus officinalis     | Leaf           | --      | 1400.0  | -0.89 | Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, 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 x mendizabalii  | Shoot          | 3900.0  | 5500.0  | -0.44 | 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          | 5500.0  | 8700.0  | -0.15 | 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          | 6200.0  | 12600.0 | 0.21  | 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     | Plant          | 3300.0  | 25000.0 | 1.16  | *   |
| Rosmarinus eriocalyx       | Shoot          | 5500.0  | 8700.0  | -0.15 | 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          | 3200.0  | 9900.0  | -0.04 | 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          | 6200.0  | 12600.0 | 0.21  | 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           | --      | 1400.0  | -0.89 | Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, 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     | Tissue Culture | --      | --      |       | *   |
| Ruscus aculeatus           | Root           | 302.0   | 3000.0  | -0.51 | *   |
| Ruscus aculeatus           | Plant          | 1000.0  | 3000.0  | -0.51 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.   |
| Ruta graveolens            | Leaf           | 600.0   | 7000.0  | -0.4  | *   |
| Salvia canariensis         | Leaf           | --      | 7000.0  | -0.4  | 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 |
| Salvia sclarea             | Plant          | 400.0   | 5000.0  | -0.36 | *   |
| Salvia gilliesii           | Shoot          | --      | 5000.0  | -0.49 | Velasco-Negueruela, A. et al. 1993. The Essential Oil of Salvia gilliesii Benth. J. Ess. Oil Res. 5: 319-320.   |
| Salvia officinalis         | Plant          | 5000.0  | 28000.0 | 1.39  | *   |
| Salvia officinalis         | Leaf           | --      | 20000.0 | 0.74  | *   |
| Salvia dorisiana           | Shoot          | --      | 1000.0  | -0.86 | Tucker, A.O. & Maciarello, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8.   |
| Salvia triloba             | Plant          | 10000.0 | 30000.0 | 1.54  | *   |
| Sambucus nigra             | Flower         | 37.0    | 3200.0  | -0.32 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.   |

|                            |          |          |          |       |  |
|----------------------------|----------|----------|----------|-------|--|
| Santalum album             | Root     | --       | 100000.0 | 4.06  | *  |
| Santalum acuminatum        | Wood     | --       | 50000.0  | 0.17  | *  |
| Santalum album             | Wood     | 15000.0  | 62500.0  | 0.55  | *  |
| Santolina chamaecyparissus | Flower   | --       | 8600.0   | -0.14 | *  |
| Sarracenia flava           | Flower   | --       | 180.0    | -0.42 | *  |
| Sarracenia flava           | Shoot    | --       | --       |       | *  |
| Sassafras albidum          | Root     | 10000.0  | 90000.0  | 3.58  | *  |
| Sassafras albidum          | Leaf     | 150.0    | 330.0    | -0.99 | *  |
| Satureja obovata           | Leaf     | --       | 22600.0  | 0.97  | 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 vulgaris          | Plant    | --       | 500.0    | -0.7  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Satureja hortensis         | Leaf     | --       | 4000.0   | -0.66 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Satureja subspicata        | Plant    | --       | 1000.0   | -0.66 | 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 grandiflora       | Shoot    | --       | 3900.0   | -0.59 | Carnat, A., Chossegros, A., and Lamaison, J. 1991. The Essential Oil of Satureja grandiflora (L.) Scheele from France. J. Ess. Oil Res., 3: 361-362  |
| Satureja obovata           | Leaf     | --       | 24100.0  | 1.11  | 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 montana           | Plant    | 1500.0   | 23000.0  | 1.01  | *  |
| Satureja glabella          | Plant    | 10000.0  | 10600.0  | 0.07  | *  |
| Satureja parvifolia        | Shoot    | --       | 5000.0   | -0.49 | Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of Satureja odora and Satureja parvifolia from Argentina. J. Ess. Oil Res. 5: 549-51.                      |
| Satureja obovata           | Shoot    | 10000.0  | 11000.0  | 0.07  | Fitoterapia No.60: 277.  |
| Satureja cuneifolia        | Shoot    | --       | 18900.0  | 0.8   | Tumen, G. 1991. The Volatile Constituents of Satureja cuneifolia. J. Ess. Oil Res., 3: 365-366.  |
| Satureja obovata           | Leaf     | --       | 22600.0  | 0.97  | 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 hortensis         | Plant    | 1500.0   | 20000.0  | 0.78  | *  |
| Satureja douglasii         | Plant    | --       | 13000.0  | 0.25  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Satureja thymbra           | Shoot    | --       | 37000.0  | 2.47  | 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. |
| Satureja odora             | Shoot    | --       | 5000.0   | -0.49 | Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of Satureja odora and Satureja parvifolia from Argentina. J. Ess. Oil Res. 5: 549-51.                      |
| Satureja obovata           | Leaf     | --       | 9800.0   | -0.15 | 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 cilicica          | Shoot    | --       | 8000.0   | -0.21 | 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.  |
| Saussurea lappa            | Root     | 15000.0  | 70000.0  | 2.64  | *  |
| Schinus terebinthifolius   | Seed     | 250000.0 | 450000.0 | 5.14  | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |
| Schinus molle              | Flower   | --       | 21000.0  | 0.28  | *  |
| Schinus molle              | Leaf     | 2000.0   | 10000.0  | -0.14 | *  |
| Schinus molle              | Fruit    | 33500.0  | 52000.0  | 0.19  | *  |
| Schisandra chinensis       | Branches | --       | --       |       | *  |
| Schisandra chinensis       | Bark     | --       | --       |       | *  |

|                            |        |          |          |       |  |
|----------------------------|--------|----------|----------|-------|--|
| Schisandra chinensis       | Leaf   | --       | --       |       | *  |
| Schisandra chinensis       | Fruit  | 10000.0  | 30000.0  | -0.24 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.                                    |
| Schizonepeta tenuifolia    | Plant  | --       | 18000.0  | 0.63  | *  |
| Scutellaria galericulata   | Plant  | --       | 600.0    | -0.69 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Scutellaria lateriflora    | Plant  | 411.0    | 3000.0   | -0.51 | *  |
| Scutellaria churchilliana  | Plant  | --       | 300.0    | -0.72 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Scutellaria parvula        | Plant  | --       | 900.0    | -0.67 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Senna occidentalis         | Seed   | 175.0    | 182.0    | -0.55 | *  |
| Serenoa repens             | Fruit  | 5400.0   | 20000.0  | -0.43 | *  |
| Sideritis germanicolpitana | Plant  | --       | 3300.0   | -0.49 | J. Essential Oil, 4: 533.  |
| Sideritis pauli            | Shoot  | --       | 3200.0   | -0.66 | Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. FFJ7: 47-8. 1992.                            |
| Sideritis athoa            | Shoot  | --       | 2500.0   | -0.72 | 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 mugronensis      | Leaf   | 1100.0   | 1600.0   | -0.87 | Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.                               |
| Sideritis mugronensis      | Flower | 3200.0   | 4400.0   | -0.28 | Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.                               |
| Sideritis scardica         | Shoot  | --       | 4350.0   | -0.55 | Menkovic, N., et al. 1991. The Essential Oil of Sideritis scardica. Pl. Med. 57. Suppl. 2. pp. A137-A132.  |
| Silybum marianum           | Seed   | --       | 1000.0   | -0.54 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| Simarouba amara            | Bark   | 1000.0   | 1800.0   | -0.81 | *  |
| Sinapis alba               | Seed   | 1000.0   | 2000.0   | -0.53 | *  |
| Skimmia arborescens        | Leaf   | 5000.0   | 24000.0  | 1.1   | *  |
| Smilax spp                 | Root   | --       | 300.0    | -0.64 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| Solanum tuberosum          | Plant  | --       | 2.0      | -0.74 | *  |
| Stachys germanica          | Plant  | --       | 800.0    | -0.68 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Stachytarpheta cayennensis | Plant  | 350.0    | 700.0    | -0.69 | *  |
| Stellaria media            | Plant  | 83.0     | 2000.0   | -0.59 | *  |
| Stevia rebaudiana          | Flower | --       | 4300.0   | -0.28 | Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.           |
| Stevia rebaudiana          | Leaf   | 250.0    | 4300.0   | -0.64 | *  |
| Stillingia sylvatica       | Plant  | 30000.0  | 40000.0  | 2.3   | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Synedrella nodiflora       | Leaf   | --       | 4000.0   | -0.66 | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.  |
| Synedrella nodiflora       | Flower | --       | 43000.0  | 1.01  | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.  |
| Syringa vulgaris           | Flower | 2400.0   | 3600.0   | -0.3  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                                   |
| Syzygium aromaticum        | Fruit  | 150000.0 | 210000.0 | 3.26  | *  |
| Syzygium aromaticum        | Stem   | 40000.0  | 60000.0  | 2.6   | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.                                    |



|                                  |                   |          |          |       |   |
|----------------------------------|-------------------|----------|----------|-------|---|
| <i>Syzygium aromaticum</i>       | Flower            | 155000.0 | 210000.0 | 6.57  | *   |
| <i>Syzygium aromaticum</i>       | Leaf              | 20000.0  | 32000.0  | 1.8   | *   |
| <i>Tagetes filifolia</i>         | Shoot             | --       | 4700.0   | -0.52 | *   |
| <i>Tagetes minuta</i>            | Plant             | 1870.0   | 5000.0   | -0.36 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.  |
| <i>Tagetes lucida</i>            | Shoot             | --       | 6000.0   | -0.4  | Bicchi, C., Fresia, M., Rubiolo, P., Monti, D., Franz, C., Goehler, I. 1997. Constituents of <i>Tagetes lucida</i> Cav. ssp. <i>lucida</i> essential oil. Flavor & Fragrance, 12(1): 47-52. |
| <i>Tagetes erecta</i>            | Plant             | --       | 1000.0   | -0.66 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Tagetes minuta</i>            | Shoot Essent. Oil | --       | --       |       | *   |
| <i>Tagetes patula</i>            | Plant             | --       | 1500.0   | -0.63 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Tanacetum parthenium</i>      | Shoot             | --       | 1500.0   | -0.81 | Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.                           |
| <i>Tanacetum vulgare</i>         | Plant             | 4000.0   | 5000.0   | -0.36 | *   |
| <i>Tanacetum parthenium</i>      | Plant             | 200.0    | 700.0    | -0.69 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Taraxacum officinale</i>      | Root              | 715.0    | 5000.0   | -0.42 | *   |
| <i>Teucrium scorodonia</i>       | Shoot             | --       | 2900.0   | -0.68 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Teucrium chamaedrys</i>       | Plant             | --       | 700.0    | -0.69 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| <i>Teucrium pseudoscorodonia</i> | Shoot             | --       | 100.0    | -0.94 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.         |
| <i>Teucrium kotschyannum</i>     | Leaf              | --       | 9000.0   | -0.22 | Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. J. Ethnopharm. 35: 105-113.               |
| <i>Teucrium cyprium</i>          | Leaf              | --       | 13000.0  | 0.13  | Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. J. Ethnopharm. 35: 105-113.               |
| <i>Teucrium oxylepis</i>         | Shoot             | --       | 100.0    | -0.94 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.         |
| <i>Teucrium arduini</i>          | Shoot             | --       | 700.0    | -0.89 | Blazevic, N., Kalodera, Z., Petricic, J., and Plazibat, M. 1992. Essential Oil Content and Composition of <i>Teucrium arduini</i> L. J. Ess. Oil Res. 4: 223-225.                           |
| <i>Teucrium scordium</i>         | Plant             | --       | 1500.0   | -0.63 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Teucrium montanum</i>         | Plant             | --       | 1000.0   | -0.66 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Teucrium gnaphalodes</i>      | Shoot             | --       | 500.0    | -0.91 | Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. J. Ess. Oil Res. 5: 397-402.                                |
| <i>Teucrium scorodonia</i>       | Shoot             | --       | 2900.0   | -0.68 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Teucrium asiaticum</i>        | Shoot             | --       | 100.0    | -0.94 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.         |
| <i>Teucrium oxylepis</i>         | Shoot             | --       | 100.0    | -0.94 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.         |

|                         |          |         |         |       |  |
|-------------------------|----------|---------|---------|-------|--|
| Teucrium polium         | Shoot    | 400.0   | 900.0   | -0.87 | Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.  |
| Teucrium salviastrum    | Shoot    | --      | 100.0   | -0.94 | 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 micropodioides | Leaf     | --      | 4000.0  | -0.66 | 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     | --      | 3000.0  | -0.75 | 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    | --      | 500.0   | -0.91 | 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 arduini        | Shoot    | --      | 700.0   | -0.89 | 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.                                       |
| Theobroma cacao         | Plant    | --      | 10.0    | -0.74 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Thuja occidentalis      | Branches | 6000.0  | 10000.0 | -0.16 | *  |
| Thymus cilicicus        | Shoot    | --      | 14600.0 | 0.4   | 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 serpyllum        | Plant    | 1500.0  | 19100.0 | 0.71  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Thymus funkii           | Shoot    | --      | 8000.0  | -0.21 | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.   |
| Thymus zygis            | Plant    | --      | 10000.0 | 0.02  | *  |
| Thymus longicaulis      | Shoot    | --      | 8000.0  | -0.21 | 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 orospedanus      | Plant    | --      | 17500.0 | 0.59  | *  |
| Thymus zygis            | Shoot    | --      | 8000.0  | -0.21 | 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 x citriodorus    | Plant    | --      | 10000.0 | 0.02  | *  |
| Thymus longicaulis      | Shoot    | --      | 8000.0  | -0.21 | 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 vulgaris         | Leaf     | 1344.0  | 26000.0 | 1.27  | *  |
| Thymus capitatus        | Shoot    | --      | 7100.0  | -0.3  | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Fragr. J. 8: 331-7.            |
| Thymus vulgaris         | Plant    | 4000.0  | 34000.0 | 1.84  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| Thymus riatarum         | Shoot    | --      | 12000.0 | 0.16  | Iglesias, J., Vila, R., Canigual, S., Bellakdhar, and Il Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riatarum. J. Ess. Oil Res. 3: 43-4.   |
| Thymus funkii           | Shoot    | --      | 8000.0  | -0.21 | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.   |
| Thymus zygis            | Shoot    | --      | 8000.0  | -0.21 | 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 longicaulis      | Shoot    | --      | 17000.0 | 0.62  | 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. |
| Trachyspermum ammi      | Plant    | --      | 15200.0 | 0.42  | *  |
| Trachyspermum ammi      | Fruit    | 20000.0 | 60000.0 | 0.35  | *  |

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|----------------------------|------------------|---------|---------|-------|---|
| Trichostemma dichotomum    | Shoot            | --      | 800.0   | -0.88 | Tucker, A.O. and Maciarelo, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.   |
| Trifolium pratense         | Flower           | --      | 1700.0  | -0.37 | 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.Agric.Food Chem.44:1827-8 |
| Trigonella foenum-graecum  | Seed             | --      | 100.0   | -0.55 | *   |
| Tropaeolum majus           | Shoot            | --      | 300.0   | -0.93 | *   |
| Tsuga canadensis           | Branches         | 4000.0  | 4600.0  | -1.14 | *   |
| Turnera diffusa            | Leaf             | 2100.0  | 10000.0 | -0.14 | *   |
| Umbellularia californica   | Stem             | 5600.0  | 11300.0 | 0.09  | *   |
| Umbellularia californica   | Essential Oil    | --      | 46900.0 | 0.26  | *   |
| Valeriana officinalis      | Leaf             | 2300.0  | 28000.0 | 1.45  | *   |
| Valeriana officinalis      | Root Essent. Oil | --      | 5000.0  |       | *   |
| Valeriana officinalis      | Root             | 590.0   | 20000.0 | 0.29  | *   |
| Valeriana jatamansi        | Root             | 5000.0  | 30000.0 | 0.76  | *   |
| Vanilla planifolia         | Fruit            | --      | 6000.0  | -0.7  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Verbena officinalis        | Plant            | --      | --      |       | *   |
| Vetiveria zizanioides      | Root             | --      | 15000.0 | 0.05  | *   |
| Viburnum opulus            | Bark             | 1000.0  | 3000.0  | -0.7  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Viburnum prunifolium       | Bark             | 2800.0  | 3300.0  | -0.68 | *   |
| Viola odorata              | Root             | --      | 380.0   | -0.64 | *   |
| Viola odorata              | Flower           | 300.0   | 1700.0  | -0.37 | *   |
| Viola odorata              | Essential Oil    | 900.0   | 1200.0  | -1.34 | *   |
| Viola tricolor             | Plant            | --      | 86.0    | -0.73 | *   |
| Vitex agnus-castus         | Flower           | 3000.0  | 7600.0  | -0.17 | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.  |
| Vitex agnus-castus         | Fruit            | 4000.0  | 12000.0 | -0.59 | 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             | --      | 230.0   | -0.99 | 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.                               |
| Xylopi aethiopica          | Seed             | --      | 13000.0 | -0.39 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Xylopi aethiopica          | Fruit            | --      | 20000.0 | -0.43 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| Yucca baccata              | Root             | 208.0   | 2000.0  | -0.56 | *   |
| Zanthoxylum alatum         | Leaf             | --      | 400.0   | -0.98 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| Zanthoxylum clava-herculis | Plant            | --      | 33000.0 | 1.77  | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.  |
| Zanthoxylum alatum         | Fruit            | 15000.0 | 23000.0 | -0.37 | *   |

|                     |                     |       |         |       |   |
|---------------------|---------------------|-------|---------|-------|---|
| Zea mays            | Silk Stigma Style   | 800.0 | 1200.0  | -1.0  | * |
| Zingiber officinale | Root                | 700.0 | 30000.0 | 0.76  | * |
| Zingiber officinale | Rhizome             | --    | 10000.0 | -0.53 | * |
| Zingiber officinale | Resin, Exudate, Sap | --    | 60000.0 | -1.01 | * |
| Zingiber officinale | Or                  | 800.0 | 50000.0 |       | * |