

# Phytochemical

Pimpinella anisum L. - Apiaceae

**Common names:** Anise -- Sweet Cumin

Synonyms: Anisum vulgare Gaertn.

## Activities

Number of distinct activities for species = 665

## List of chemicals

| Chemical   | Part                 | Lo ppm | Hi ppm | Reference                 |
|--|----------------------|--------|--------|---------------------------|
| <a href="#">1,4-BENZOQUINONE</a>   | Leaf                 |        |        | <a href="#">7317</a>      |
| <a href="#">1,4-BENZOQUINONE</a>   | Root                 |        |        | <a href="#">7317</a>      |
| <a href="#">1,4-BENZOQUINONE</a>   | Tissue Culture       |        |        | <a href="#">7317</a>      |
| <a href="#">1-(1-METHYL-CYCLOHEXYL)-2-HYDROXY-4-METHYL-BENZENE-METHYL-CHAV</a> | Plant                |        |        | <a href="#">DUKE1992A</a> |
| <a href="#">1-METHYL-4-(1-PROPENYL)-BENZENE</a>                                | Plant                |        |        | <a href="#">DUKE1992A</a> |
| <a href="#">1-METHYL-4-ISOBUTYLBENZENE</a>                                     | Plant                |        |        | <a href="#">DUKE1992A</a> |
| <a href="#">1-PROPENYL-2-HYDROXY-5-METHOXY-BENZENE-2-(2-METHYL-BUTYRATE)</a>   | Seed                 |        |        | <a href="#">411</a>       |
| <a href="#">2,6,10,14-TETRAMETHYL-PENTADECANE</a>                              | Plant                |        |        | <a href="#">DUKE1992A</a> |
| <a href="#">4-(BETA-D-GLUCOPYRANOSYLOXY)-BENZOIC-ACID</a>                      | Seed                 |        | 9000   | <a href="#">11189</a>     |
| <a href="#">4-4'-DIMETHOXY-STILBENE</a>  | Seed<br>Essent. Oil  |        |        | <a href="#">9761</a>      |
| <a href="#">4-METHOXY-2-(PROP-TRANS-1-ENYL)-PHENYL-(DL)-2-METHYL-BUTANOATE</a> | Shoot<br>Essent. Oil |        | 15000  | <a href="#">8501</a>      |
| <a href="#">4-METHOXY-2-(TRANS-1-PROPENYL)-PHENYL-2-METHYLBUTYRATE</a>         | Seed                 |        |        | <a href="#">9361</a>      |
| <a href="#">5-METHOXY-PSORALEN</a>   | Seed                 |        |        | <a href="#">8274</a>      |
| <a href="#">ABSCISIC-ACID</a>  | Seed                 |        | 0.2    | <a href="#">10815</a>     |
| <a href="#">ACETALDEHYDE</a>   | Seed                 |        |        | <a href="#">CAN</a>       |
| <a href="#">ACETOANISOLE</a>   | Seed                 |        | 100    | <a href="#">DUKE1992A</a> |
| <a href="#">ACETYL-CHOLINE</a>   | Seed                 |        | 64     | <a href="#">9450</a>      |
| <a href="#">ALPHA-HIMACHALENE</a>  | Seed                 |        |        | <a href="#">CAN</a>       |
| <a href="#">ALPHA-PINENE</a>   | Essential Oil        |        |        | <a href="#">10080</a>     |

|   |                     |        |        |                                |
|---|---------------------|--------|--------|--------------------------------|
| <a href="#"><u>ALPHA-PINENE</u></a>           | Seed                | 1      | 306    | <a href="#">DUKE1992A</a>      |
| <a href="#"><u>ALPHA-TERPINENE</u></a>        | Essential Oil       |        |        | <a href="#">10080</a>          |
| <a href="#"><u>ALPHA-TERPINEOL</u></a>        | Seed                |        | 1      | <a href="#">DUKE1992A</a>      |
| <a href="#"><u>ALPHA-THUJENE</u></a>          | Essential Oil       |        |        | <a href="#">10080</a>          |
| <a href="#"><u>ALPHA-TOCOPHEROL</u></a>       | Leaf                |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-TOCOPHEROL</u></a>       | Tissue Culture      |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-TOCOPHEROL</u></a>       | Root                |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-TOCOQUINONE</u></a>      | Leaf                |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-TOCOQUINONE</u></a>      | Tissue Culture      |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-TOCOQUINONE</u></a>      | Root                |        |        | <a href="#">7317</a>           |
| <a href="#"><u>ALPHA-ZINGIBERENE</u></a>      | Plant               |        |        | <a href="#">DUKE1992A</a>      |
| <a href="#"><u>ANETHOL-GLYCOL</u></a>         | Plant               |        |        | <a href="#">DUKE1992A</a>      |
| <a href="#"><u>ANETHOLE</u></a>               | Seed<br>Essent. Oil | 800000 | 900000 | <a href="#">6010 6387</a>      |
| <a href="#"><u>ANETHOLE</u></a>               | Seed                |        |        | <a href="#">8065 8520</a>      |
| <a href="#"><u>ANETHOLE</u></a>               | Tissue Culture      |        |        | <a href="#">8897</a>           |
| <a href="#"><u>ANETHOLE</u></a>               | Shoot               |        |        | <a href="#">9436</a>           |
| <a href="#"><u>ANETHOLE</u></a>               | Seed                |        |        | <a href="#">9278</a>           |
| <a href="#"><u>ANETHOLE</u></a>               | Plant               |        |        | <a href="#">JBH</a>            |
| <a href="#"><u>ANETHOLE</u></a>               | Essential Oil       |        |        | <a href="#">8897 7527 7333</a> |
| <a href="#"><u>ANETHOLE</u></a>               | Root                |        |        | <a href="#">9436</a>           |
| <a href="#"><u>ANISALDEHYDE</u></a>           | Essential Oil       |        |        | <a href="#">10080 7527</a>     |
| <a href="#"><u>ANISALDEHYDE</u></a>           | Seed                | 140    | 1960   | <a href="#">PH2 WOI 9278</a>   |
| <a href="#"><u>ANISIC-ACID</u></a>            | Essential Oil       |        |        | <a href="#">10080</a>          |
| <a href="#"><u>ANISIC-ACID</u></a>            | Seed                |        |        | <a href="#">411</a>            |
| <a href="#"><u>ANISKETONE</u></a>             | Seed                |        | 731    | <a href="#">DUKE1992A</a>      |
| <a href="#"><u>ANISYL KETONE</u></a>          | Seed<br>Essent. Oil |        |        | <a href="#">8586</a>           |
| <a href="#"><u>ANISYL-ALCOHOL</u></a>         | Seed                | 100    | 1750   | <a href="#">FNF 8586</a>       |
| <a href="#"><u>APIGENIN</u></a>               | Seed                |        |        | <a href="#">CAN</a>            |
| <a href="#"><u>APIGENIN-7-O-GLUCOSIDE</u></a> | Seed                |        |        | <a href="#">PH2 PNC 411</a>    |
| <a href="#"><u>AR-CURCUMENE</u></a>           | Seed                |        | 200    | <a href="#">CAN</a>            |

|  |                     |        |        |                                   |
|--|---------------------|--------|--------|-----------------------------------|
| <a href="#"><u>ASCORBIC-ACID</u></a>       | Seed                | 8      | 9      | <a href="#"><u>DUKE1992A</u></a>  |
| <a href="#"><u>ASH</u></a>                 | Seed                | 60000  | 100000 | <a href="#"><u>CRC WOI</u></a>    |
| <a href="#"><u>AZULENE</u></a>             | Seed                |        |        | <a href="#"><u>WOI</u></a>        |
| <a href="#"><u>BERGAPTEN</u></a>           | Seed                |        |        | <a href="#"><u>411 9895</u></a>   |
| <a href="#"><u>BERGAPTEN</u></a>           | Tissue Culture      |        | 5000   | <a href="#"><u>8071 7330</u></a>  |
| <a href="#"><u>BETA-AMYRIN</u></a>         | Seed                |        |        | <a href="#"><u>CAN</u></a>        |
| <a href="#"><u>BETA-BISABOLENE</u></a>     | Essential Oil       |        |        | <a href="#"><u>8897</u></a>       |
| <a href="#"><u>BETA-BISABOLENE</u></a>     | Tissue Culture      |        |        | <a href="#"><u>8897</u></a>       |
| <a href="#"><u>BETA-CARYOPHYLLENE</u></a>  | Seed<br>Essent. Oil |        |        | <a href="#"><u>8586</u></a>       |
| <a href="#"><u>BETA-CARYOPHYLLENE</u></a>  | Seed                |        |        | <a href="#"><u>CAN</u></a>        |
| <a href="#"><u>BETA-ELEMENE</u></a>        | Seed<br>Essent. Oil |        |        | <a href="#"><u>10659</u></a>      |
| <a href="#"><u>BETA-FARNESENE</u></a>      | Seed                |        |        | <a href="#"><u>CAN</u></a>        |
| <a href="#"><u>BETA-HIMACHALENE</u></a>    | Seed                |        |        | <a href="#"><u>CAN</u></a>        |
| <a href="#"><u>BETA-PINENE</u></a>         | Seed                |        | 1      | <a href="#"><u>DUKE1992A</u></a>  |
| <a href="#"><u>BETA-SITOSTEROL</u></a>     | Tissue Culture      |        |        | <a href="#"><u>7330</u></a>       |
| <a href="#"><u>BISABOLENE</u></a>          | Seed                |        |        | <a href="#"><u>CAN</u></a>        |
| <a href="#"><u>BORON</u></a>               | Seed                |        | 20     | <a href="#"><u>BOB</u></a>        |
| <a href="#"><u>BUTYRIC-ACID</u></a>        | Seed                |        |        | <a href="#"><u>WOI</u></a>        |
| <a href="#"><u>CADALENE</u></a>            | Seed                |        |        | <a href="#"><u>WOI</u></a>        |
| <a href="#"><u>CAFFEIC-ACID</u></a>        | Seed                |        | 2060   | <a href="#"><u>10958</u></a>      |
| <a href="#"><u>CAFFEOYLQUINIC-ACID</u></a> | Seed                |        |        | <a href="#"><u>PH2</u></a>        |
| <a href="#"><u>CALCIUM</u></a>             | Seed                | 6460   | 7843   | <a href="#"><u>CRC</u></a>        |
| <a href="#"><u>CAMPHENE</u></a>            | Essential Oil       |        |        | <a href="#"><u>10080</u></a>      |
| <a href="#"><u>CAMPHENE</u></a>            | Seed                |        | 119    | <a href="#"><u>DUKE1992A</u></a>  |
| <a href="#"><u>CAMPHOR</u></a>             | Seed<br>Essent. Oil |        |        | <a href="#"><u>8586</u></a>       |
| <a href="#"><u>CARBOHYDRATES</u></a>       | Seed                | 453000 | 552000 | <a href="#"><u>CAN CRC</u></a>    |
| <a href="#"><u>CARVENE</u></a>             | Seed                |        | 4240   | <a href="#"><u>DUKE1992A</u></a>  |
| <a href="#"><u>CARVONE</u></a>             | Seed<br>Essent. Oil |        |        | <a href="#"><u>10659 8586</u></a> |
| <a href="#"><u>CHAMAZULENE</u></a>         | Essential Oil       |        |        | <a href="#"><u>10080</u></a>      |
| <a href="#"><u>CHLOROGENIC-ACID</u></a>    | Seed                |        | 1000   | <a href="#"><u>PH2</u></a>        |

|  |                     |       |        |   |
|--|---------------------|-------|--------|---|
| <a href="#"><u>CHOLINE</u></a>   | Seed                |       | 3950   | <a href="#">9450 WOI</a>                      |
| <a href="#"><u>CINNAMALDEHYDE</u></a>                                  | Seed<br>Essent. Oil |       |        | <a href="#">10659</a>                         |
| <a href="#"><u>CINNAMYL-ALCOHOL</u></a>                                | Seed<br>Essent. Oil |       |        | <a href="#">10659</a>                         |
| <a href="#"><u>CIS-ANETHOLE</u></a>                                    | Seed<br>Essent. Oil |       |        | <a href="#">8586</a>                          |
| <a href="#"><u>CIS-ANETHOLE</u></a>                                    | Seed                |       | 200    | <a href="#">DUKE1992A</a>                     |
| <a href="#"><u>CIS-ANETHOLE</u></a>                                    | Essential<br>Oil    |       |        | <a href="#">10080</a>                         |
| <a href="#"><u>CIS-OCIMENE</u></a>                                     | Seed                |       | 25     | <a href="#">DUKE1992A</a>                     |
| <a href="#"><u>COPPER</u></a>  | Seed                |       | 9      | <a href="#">USA</a>                           |
| <a href="#"><u>COUMARINS</u></a>                                       | Seed                |       |        | <a href="#">WIC</a>                           |
| <a href="#"><u>CRESOL</u></a>  | Plant               |       |        | <a href="#">CAN</a>                           |
| <a href="#"><u>CYNAROSIDE</u></a>                                      | Seed                |       | 1280   | <a href="#">10821 10600<br/>11032</a>         |
| <a href="#"><u>D-CARVONE</u></a>                                       | Plant               |       |        | <a href="#">411</a>                           |
| <a href="#"><u>DELTA-ELEMENE</u></a>                                   | Seed                |       |        | <a href="#">CAN</a>                           |
| <a href="#"><u>DIANETHOLE</u></a>                                      | Seed                |       |        | <a href="#">411</a>                           |
| <a href="#"><u>DIANISOIN</u></a>                                       | Seed                |       |        | <a href="#">WIC</a>                           |
| <a href="#"><u>DIHYDROCARVONE-ACETATE</u></a>                          | Seed<br>Essent. Oil |       |        | <a href="#">8586</a>                          |
| <a href="#"><u>DIHYDROCARVYL-ACETATE</u></a>                           | Plant               |       |        | <a href="#">DUKE1992A</a>                     |
| <a href="#"><u>EO</u></a>  | Seed                | 6100  | 140000 | <a href="#">BML CAN WIC<br/>WOI 6010 6387</a> |
| <a href="#"><u>EO</u></a>  | Tissue<br>Culture   |       |        | <a href="#">11570</a>                         |
| <a href="#"><u>EPOXY-PSEUDOISOEUGENOL-(2-METHYL-<br/>BUTYRATE)</u></a> | Plant               |       |        | <a href="#">DUKE1992A</a>                     |
| <a href="#"><u>ESTRAGOLE</u></a>                                       | Seed<br>Essent. Oil |       | 40000  | <a href="#">8586 6387</a>                     |
| <a href="#"><u>ESTRAGOLE</u></a>                                       | Seed                |       |        | <a href="#">411</a>                           |
| <a href="#"><u>ESTRAGOLE</u></a>                                       | Essential<br>Oil    |       | 815000 | <a href="#">10087 10080</a>                   |
| <a href="#"><u>EUGENOL</u></a>   | Seed<br>Essent. Oil |       |        | <a href="#">8586</a>                          |
| <a href="#"><u>EUGENOL</u></a>   | Seed                |       |        | <a href="#">WOI</a>                           |
| <a href="#"><u>EUGENOL</u></a>   | Essential<br>Oil    |       |        | <a href="#">10080</a>                         |
| <a href="#"><u>FAT</u></a>   | Seed                | 80000 | 304000 | <a href="#">CAN CRC PH2<br/>WOI</a>           |
| <a href="#"><u>FENCHONE</u></a>  | Seed                |       |        | <a href="#">8586</a>                          |

|   |                     |        |        |                                   |
|---|---------------------|--------|--------|-----------------------------------|
|   | Essent. Oil         |        |        |                                   |
| <a href="#"><u>FIBER</u></a>                        | Seed                | 120000 | 250000 | <a href="#">CRC WOI</a>           |
| <a href="#"><u>FOENICULIN</u></a>                   | Seed                |        |        | <a href="#">9278</a>              |
| <a href="#"><u>FURFURAL</u></a>                     | Seed                |        | 30000  | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>GAMMA-HIMACHALENE</u></a>            | Seed                | 200    | 1200   | <a href="#">WIC</a>               |
| <a href="#"><u>GLUCINOL</u></a>                     | Tissue Culture      |        |        | <a href="#">11030</a>             |
| <a href="#"><u>HYDROQUINONE</u></a>                 | Plant               |        |        | <a href="#">JBH</a>               |
| <a href="#"><u>HYDROQUINONE-METHYL-ETHER</u></a>    | Seed                |        |        | <a href="#">WOI</a>               |
| <a href="#"><u>IMPERATORIN</u></a>                  | Leaf                |        |        | <a href="#">JCE17:1859 7802</a>   |
| <a href="#"><u>IRON</u></a>                         | Seed                | 348    | 409    | <a href="#">CRC</a>               |
| <a href="#"><u>ISOCARYOPHYLLENE</u></a>             | Plant               |        |        | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>ISOCHAVIBETOL</u></a>                | Seed                |        | 250    | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>ISOORIENTIN</u></a>                  | Seed                |        |        | <a href="#">CAN 11032</a>         |
| <a href="#"><u>ISOPIMPINELLIN</u></a>               | Root                |        |        | <a href="#">JBH</a>               |
| <a href="#"><u>ISOQUERCITRIN</u></a>                | Leaf                |        |        | <a href="#">11688</a>             |
| <a href="#"><u>ISOVITEXIN</u></a>                   | Seed                |        |        | <a href="#">PH2 PNC 411 11032</a> |
| <a href="#"><u>KILOCALORIES</u></a>                 | Seed                | 3370   | 4150   | <a href="#">CRC</a>               |
| <a href="#"><u>LIMONENE</u></a>                     | Seed<br>Essent. Oil |        |        | <a href="#">8586</a>              |
| <a href="#"><u>LIMONENE</u></a>                     | Seed                | 25     | 459    | <a href="#">CAN</a>               |
| <a href="#"><u>LIMONENE</u></a>                     | Essential Oil       |        |        | <a href="#">10080</a>             |
| <a href="#"><u>LINALOOL</u></a>                     | Seed<br>Essent. Oil |        |        | <a href="#">8586</a>              |
| <a href="#"><u>LINALOOL</u></a>                     | Seed                |        | 50     | <a href="#">411 CAN</a>           |
| <a href="#"><u>LINOLEIC-ACID</u></a>                | Seed                | 13700  | 52000  | <a href="#">CRC WOI</a>           |
| <a href="#"><u>LUTEOLIN</u></a>                     | Seed                |        | 1250   | <a href="#">10821 10600 CAN</a>   |
| <a href="#"><u>LUTEOLIN-7-GLYCOSIDE</u></a>         | Plant               |        |        | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>LUTEOLIN-7-O-BETA-D-XYLOSIDE</u></a> | Seed                |        | 1580   | <a href="#">10821</a>             |
| <a href="#"><u>LUTEOLIN-7-O-BETA-D-XYLOXIDE</u></a> | Seed                |        |        | <a href="#">10600</a>             |
| <a href="#"><u>LUTEOLIN-7-O-GLUCOSIDE</u></a>       | Seed                |        |        | <a href="#">PNC</a>               |
| <a href="#"><u>LUTEOLIN-7-O-XYLOSIDE</u></a>        | Plant               |        |        | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>MAGNESIUM</u></a>                    | Seed                |        | 1878   | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>MANGANESE</u></a>                    | Seed                |        | 23     | <a href="#">USA</a>               |
| <a href="#"><u>MANNITOL</u></a>                     | Root                |        |        | <a href="#">DUKE1992A</a>         |
| <a href="#"><u>METHYL-CHAVICOL</u></a>              | Seed                | 100    | 1200   | <a href="#">BML WIC</a>           |
| <a href="#"><u>MYRICANOL</u></a>                    | Root                |        |        | <a href="#">DUKE1992A</a>         |

|   |                     |        |        |                                      |
|---|---------------------|--------|--------|--------------------------------------|
| <a href="#"><u>MYRISTIC-ACID</u></a>                        | Seed                |        |        | <a href="#"><u>WOI</u></a>           |
| <a href="#"><u>MYRISTICIN</u></a>                           | Seed                |        |        | <a href="#"><u>CAN 11721</u></a>     |
| <a href="#"><u>MYRISTICIN</u></a>                           | Tissue Culture      |        |        | <a href="#"><u>8897</u></a>          |
| <a href="#"><u>OLEIC-ACID</u></a>                           | Seed                | 44800  | 217000 | <a href="#"><u>11124 CRC WOI</u></a> |
| <a href="#"><u>P-ANISALDEHYDE</u></a>                       | Seed                |        |        | <a href="#"><u>JBH</u></a>           |
| <a href="#"><u>P-ANISIC-ACID</u></a>                        | Seed<br>Essent. Oil |        |        | <a href="#"><u>8586</u></a>          |
| <a href="#"><u>P-COUMARIC-ACID</u></a>                      | Seed                |        | 737    | <a href="#"><u>10958</u></a>         |
| <a href="#"><u>P-CREOSOL</u></a>                            | Plant               |        |        | <a href="#"><u>JBH</u></a>           |
| <a href="#"><u>P-CRESOL</u></a>                             | Plant               |        |        | <a href="#"><u>DUKE1992A</u></a>     |
| <a href="#"><u>P-METHOXYPHENYLACETONE</u></a>               | Seed                |        |        | <a href="#"><u>CAN</u></a>           |
| <a href="#"><u>PALMITIC-ACID</u></a>                        | Seed                | 2560   | 9730   | <a href="#"><u>CRC WOI</u></a>       |
| <a href="#"><u>PETROSELINIC-ACID</u></a>                    | Seed                | 18800  | 489000 | <a href="#"><u>11124 CRC WOI</u></a> |
| <a href="#"><u>PELLANDRENE</u></a>                          | Seed<br>Essent. Oil |        |        | <a href="#"><u>6387</u></a>          |
| <a href="#"><u>PELLANDRENE</u></a>                          | Seed                |        | 408    | <a href="#"><u>DUKE1992A</u></a>     |
| <a href="#"><u>PHOSPHORUS</u></a>                           | Seed                | 4400   | 4862   | <a href="#"><u>CRC</u></a>           |
| <a href="#"><u>PHOTOANETHOLE</u></a>                        | Seed                |        |        | <a href="#"><u>411</u></a>           |
| <a href="#"><u>PLASTOHYDROQUINONE-9</u></a>                 | Leaf                |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>PLASTOHYDROQUINONE-9</u></a>                 | Tissue Culture      |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>PLASTOHYDROQUINONE-9</u></a>                 | Root                |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>PLASTOQUINONE 9</u></a>                      | Leaf                |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>PLASTOQUINONE 9</u></a>                      | Tissue Culture      |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>PLASTOQUINONE 9</u></a>                      | Root                |        |        | <a href="#"><u>7317</u></a>          |
| <a href="#"><u>POTASSIUM</u></a>                            | Seed                | 14410  | 15923  | <a href="#"><u>CRC</u></a>           |
| <a href="#"><u>PREGEIJERENE</u></a>                         | Root<br>Essent. Oil |        | 164000 | <a href="#"><u>11078</u></a>         |
| <a href="#"><u>PRISTANE</u></a>                             | Plant               |        |        | <a href="#"><u>DUKE1992A</u></a>     |
| <a href="#"><u>PROAZULENE</u></a>                           | Plant               |        |        | <a href="#"><u>DUKE1992A</u></a>     |
| <a href="#"><u>PROPIONIC-ACID</u></a>                       | Seed                |        |        | <a href="#"><u>WOI</u></a>           |
| <a href="#"><u>PROTEIN</u></a>                              | Seed                | 188000 | 213000 | <a href="#"><u>CRC</u></a>           |
| <a href="#"><u>PSEUDOISOEUGENOL-(2-METHYL-BUTYRATE)</u></a> | Root                |        |        | <a href="#"><u>9436</u></a>          |
| <a href="#"><u>PSEUDOISOEUGENOL-(2-METHYL-BUTYRATE)</u></a> | Seed                | 500    | 3000   | <a href="#"><u>WIC</u></a>           |
| <a href="#"><u>PSEUDOISOEUGENOL-(2-METHYL-BUTYRATE)</u></a> | Shoot               |        |        | <a href="#"><u>9436</u></a>          |

|   |                      |       |        |                                 |
|---|----------------------|-------|--------|---------------------------------|
| <a href="#"><u>QUERCETIN</u></a>                        | Seed                 |       |        | <a href="#">CAN</a>             |
| <a href="#"><u>QUERCETIN-3-GLUCURONIDE</u></a>          | Plant                |       |        | <a href="#">DUKE1992A</a>       |
| <a href="#"><u>QUERCETIN-3-O-BETA-D-GLUCURONIDE</u></a> | Seed                 |       |        | <a href="#">11032</a>           |
| <a href="#"><u>QUERCETIN-GLUCOSIDES</u></a>             | Seed                 |       |        | <a href="#">411</a>             |
| <a href="#"><u>RUTIN</u></a>                            | Seed                 |       |        | <a href="#">411 11032</a>       |
| <a href="#"><u>SABINENE</u></a>                         | Seed                 |       | 1      | <a href="#">DUKE1992A</a>       |
| <a href="#"><u>SAFROLE</u></a>                          | Essential Oil        |       |        | <a href="#">7527</a>            |
| <a href="#"><u>SALICYLATES</u></a>                      | Seed                 | 30    | 230    | <a href="#">JAD85:9501</a>      |
| <a href="#"><u>SCOPARONE</u></a>                        | Leaf                 |       |        | <a href="#">JCE17:1859 7802</a> |
| <a href="#"><u>SCOPOLETIN</u></a>                       | Leaf                 |       |        | <a href="#">JCE17:1859 7802</a> |
| <a href="#"><u>SCOPOLETIN</u></a>                       | Tissue Culture       |       | 25000  | <a href="#">8071 7330</a>       |
| <a href="#"><u>SCOPOLETIN</u></a>                       | Seed                 |       |        | <a href="#">411</a>             |
| <a href="#"><u>SESELIN</u></a>                          | Leaf                 |       |        | <a href="#">JCE17:1859 7802</a> |
| <a href="#"><u>SODIUM</u></a>                           | Seed                 | 160   | 177    | <a href="#">CRC</a>             |
| <a href="#"><u>SQUALENE</u></a>                         | Plant                |       |        | <a href="#">DUKE1992A</a>       |
| <a href="#"><u>STARCH</u></a>                           | Seed                 |       | 50000  | <a href="#">WOI</a>             |
| <a href="#"><u>STIGMASTEROL</u></a>                     | Seed                 |       |        | <a href="#">CAN HHB</a>         |
| <a href="#"><u>STIGMASTEROL</u></a>                     | Tissue Culture       |       |        | <a href="#">7330</a>            |
| <a href="#"><u>STIGMASTEROL-PALMITATE</u></a>           | Seed                 |       |        | <a href="#">CAN</a>             |
| <a href="#"><u>STIGMASTEROL-STEARATE</u></a>            | Seed                 |       |        | <a href="#">CAN</a>             |
| <a href="#"><u>SUGAR</u></a>                            | Seed                 | 30000 | 50000  | <a href="#">WOI</a>             |
| <a href="#"><u>TERPINEOL</u></a>                        | Essential Oil        |       |        | <a href="#">7527</a>            |
| <a href="#"><u>THYMOL</u></a>                           | Essential Oil        |       |        | <a href="#">10080</a>           |
| <a href="#"><u>TRANS-ALPHA-BERGAMOTENE</u></a>          | Seed<br>Essent. Oil  |       |        | <a href="#">10659</a>           |
| <a href="#"><u>TRANS-ANETHOLE</u></a>                   | Shoot<br>Essent. Oil |       | 875000 | <a href="#">11047</a>           |
| <a href="#"><u>TRANS-ANETHOLE</u></a>                   | Seed<br>Essent. Oil  |       | 752000 | <a href="#">8586 10659</a>      |
| <a href="#"><u>TRANS-ANETHOLE</u></a>                   | Seed                 | 14000 | 126000 | <a href="#">CAN WIC</a>         |
| <a href="#"><u>TRANS-ANETHOLE</u></a>                   | Essential Oil        |       | 98000  | <a href="#">10087 10080</a>     |
| <a href="#"><u>TRANS-ANETHOLE</u></a>                   | Leaf<br>Essent. Oil  |       | 825000 | <a href="#">11047</a>           |
| <a href="#"><u>UMBELLIFERONE</u></a>                    | Seed                 |       |        | <a href="#">411 JBH</a>         |

|                                       |                |       |        |                                  |
|---------------------------------------|----------------|-------|--------|----------------------------------|
| <a href="#"><u>UMBELLIFERONE</u></a>  | Tissue Culture |       | 5000   | <a href="#"><u>8071 7330</u></a> |
| <a href="#"><u>UMBELLIPRENINE</u></a> | Seed           |       |        | <a href="#"><u>CAN HHB</u></a>   |
| <a href="#"><u>VITAMIN-K-1</u></a>    | Leaf           |       |        | <a href="#"><u>7317</u></a>      |
| <a href="#"><u>VITAMIN-K-1</u></a>    | Root           |       |        | <a href="#"><u>7317</u></a>      |
| <a href="#"><u>VITAMIN-K-1</u></a>    | Tissue Culture |       |        | <a href="#"><u>7317</u></a>      |
| <a href="#"><u>WATER</u></a>          | Seed           | 95000 | 110000 | <a href="#"><u>CRC</u></a>       |
| <a href="#"><u>XANTHOTOXIN</u></a>    | Seed           |       |        | <a href="#"><u>9895 8274</u></a> |
| <a href="#"><u>ZINC</u></a>           | Seed           |       | 59     | <a href="#"><u>DUKE1992A</u></a> |

green