**Supplementary Table 1**. Plant essential oils used for testing minimum inhibitory concentration (MIC) and Minimum fungicidal concentration (MFC) against *Alternaria solani*

|  |  |  |  |
| --- | --- | --- | --- |
| **Treatment** | **Plant Name** | **Technical Names** | **Essential oil concentrations** |
| T1 | Neem | *Azadirachta indica* | (10%) |
| T2 | Neem | *Azadirachta indica* | (25%) |
| T3 | Zeera | *Cuminum Cyminum* | (10%) |
| T4 | Zeera | *Cuminum Cyminum* | (25%) |
| T5 | Ajwain | *Trachyspermum ammi L* | (10%) |
| T6 | Ajwain | *Trachyspermum ammi L* | (25%) |
| T7 | Safaida | *Eucalyptus grandis* | (10%) |
| T8 | Safaida | *Eucalyptus grandis* | (25%) |
| T9 | Sweet orange | *Citrus sinensis* | (10%) |
| T10 | Sweet orange | *Citrus sinensis* | (25%) |
| T11 | Control | Ethanol | |

**Supplementary Table 2.** Plant essential oils as foliar application used for testing their efficacy against percent disease incidence and percent disease severity of *Alternaria solani*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Treatment** | **Plant Name** | **Technical Names** | | **Essential oil concentrations** | |
| T1 | Neem | *Azadirachta indica* | (60%) | |
| T2 | Neem | *Azadirachta indica* | (80%) | |
| T3 | Zeera | *Cuminum Cyminum* | (60%) | |
| T4 | Zeera | *Cuminum Cyminum* | (80%) | |
| T5 | Ajwain | *Trachyspermum ammi L* | (60%) | |
| T6 | Ajwain | *Trachyspermum ammi L* | (80%) | |
| T7 | +Control | Ridomil Gold WG |  | |
| T8 | -Control | Ethanol |  | |

**Supplementary Table 3.** List of Chemical components found in the essential oil of *Trachyspermum ammi L*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr No** | **Compound name** | **Class name** | **PubChem CID** | **Toxicity value** | **Human Toxicity (Yes/No)** |
| 1 | o-Xylene | Monoterpene ketone | 7237 | 0.992 | Y |
| 2 | α-Pinene | Aromatic hydrocarbon | 6654 | -4.202 | N |
| 3 | β-Pinene | Bicyclic monoterpene | 440967 | -4.202 | N |
| 4 | Myrcene c | Acyclic monoterpene | 31253 | -4.202 | N |
| 5 | p-Cymene | Alkylbenzenemonoterpene | 7463 | -4.238 | N |
| 6 | β-Phellandrene | Monocyclic monoterpene | 405237423 | -9.840 | Y |
| 7 | 1,8-Cineol | Bicyclic monoterpene alcohol | 2758 | 0.668 | N |
| 8 | γ-Terpinene | Monocyclic monoterpene | 348276756 | 0.899 | Y |
| 9 | Terpinen-4-ol | Monocyclic monoterpene alcohol | 11230 | 0.628 | N |
| 10 | Limonene oxide | Monocyclic monoterpene epoxide | 91496 | 0.813 | Y |
| 11 | γ-Terpineol | Monocyclic monoterpenealcoho | 253657446 | 0.976 | Y |
| 12 | Cymen-8-ol | Monoterpene alcohol | 523862 | 0.987 | Y |
| 13 | α-Terpineol | Monocyclic monoterpene alcohol | 348276216 |  | Y |
| 14 | trans-Verbenyl acetate | Bicyclic monoterpene | 6428417 | 0.867 | Y |
| 15 | (E)-Anethole | Monoterpene anisole | 637563 | 0.80 | Y |
| 16 | Thymol | Monoterpene phenol | 6989 | 0.876 | Y |
| 17 | Carvacrol | Monoterpene phenol | 10364 | 0.998 | Y |
| 18 | 4-Vinyl guaiacol | Monoterpene phenol | 332 | 0.930 | Y |
| 19 | 3-Terpinolenone | Monocyclic monoterpene | 381152 | 0.899 | Y |
| 20 | 2,6 Di-tert-butyl-4-methylphenol | Alkyl phenol | 71441425 | 0.962 | Y |
| 21 | (E)-Octadec-9-ene | Aliphatic hydrocarbon | 12382046 | 0.668 | N |
| 22 | 2-(Octan-4-yl)phenol | Alkyl phenol | 115023105 | 0.977 | Y |
| 23 | 2-Nonyl phenol | Alkyl phenol | 3019204 | 0.853 | Y |
| 24 | Eicosene | Aliphatic hydrocarbon | 6992855 | 0.806 | Y |
| 25 | Nerone | Aliphatic ketone | 53681063 | 0.839 | Y |
| 26 | Nonadec-1-ene | Aliphatic hydrocarbon | 6422908 | 0.721 | N |
| 27 | α-Isomethyl Ionone | Monoterpene ketone | 5372174 | 0.945 | Y |
| 28 | Palmitic acid | Aliphatic carboxylic acid | 985 | 0.541 | N |
| 29 | (E)-Octadec-2-enoic acid | Aliphatic carboxylic acid | 5282750 | 0.771 | N |
| 30 | Vaccenic acid | Organic compound | 5282761 | 0.506 | N |
| 31 | cis-13-Octadecenoic acid | Organic compound | 5312441 | 0.514 | N |
| 32 | Epi-Laurenene | Humulene epoxide II | 9175273 | 0.517 | N |