

**Supplementary Table S2.** List of putative VOCs produced by the 11 *Streptomyces* isolated from a *Rhizoctonia*-suppressive soil and the reference strain *S. lividans* 1326. VOCs displayed are significantly different ( $p < 0.05$ ), detected at peak intensities at least twice as high as in the control (medium only) and with a match factor higher than 800. Compounds were putatively annotated by comparing their mass spectra with those of NIST and in-house mass spectral libraries.

| RI  | Putative compound                                 | 3A18 | 3A41 | 3B40 | 3B44 | W47 | W62 | W75.5 | W75.6 | W99 | W126 | W214 | <i>S. lividans</i> |
|-----|---------------------------------------------------|------|------|------|------|-----|-----|-------|-------|-----|------|------|--------------------|
| 737 | 3-Hydroxy-2-butanone                              | X    | X    |      | X    | X   |     |       | X     | X   |      | X    |                    |
| 743 | Methyl butanoate                                  |      | X    | X    | X    | X   | X   |       | X     | X   | X    | X    | X                  |
| 745 | Butanoic acid, methyl ester                       | X    |      | X    | X    | X   |     |       |       | X   |      |      | X                  |
| 749 | 3-Methyl-3-buten-1-ol                             | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 751 | 1-Butanol, 3-methyl                               | X    | X    | X    | X    | X   |     | X     | X     | X   | X    | X    | X                  |
| 754 | 1-Butanol, 2-methyl-, (S)                         | X    | X    | X    | X    | X   |     | X     | X     | X   | X    | X    | X                  |
| 760 | Dimethyl disulfide                                | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 774 | 2-Methylpropanoic acid                            |      |      |      |      | X   |     |       | X     |     |      |      |                    |
| 792 | Butanoic acid                                     |      | X    | X    | X    | X   |     |       | X     | X   |      | X    |                    |
| 796 | Furan, 2-propyl                                   |      |      |      |      |     |     |       | X     |     |      |      |                    |
| 799 | Butanoic acid, 2-methyl-, methyl ester            | X    | X    | X    | X    | X   | X   |       | X     | X   | X    | X    | X                  |
| 805 | meso-3,4-Hexanediol                               | X    | X    | X    | X    | X   |     |       | X     | X   |      | X    | X                  |
| 807 | Propanoic acid, 2-hydroxy-2-methyl-, methyl ester | X    | X    | X    | X    | X   |     |       | X     | X   |      | X    | X                  |
| 812 | Oxirane, (methoxymethyl)                          | X    | X    | X    | X    | X   | X   |       | X     | X   |      | X    | X                  |
| 817 | Acetic acid, butyl ester                          |      | X    | X    |      |     | X   |       |       |     |      |      | X                  |
| 818 | Butanoic acid, 3,3-dimethyl-, methyl ester        |      | X    | X    | X    | X   | X   |       | X     |     | X    | X    |                    |
| 850 | Butanethioic acid, S-methyl ester                 | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 856 | 2-Methylbutanoic acid                             |      |      | X    |      | X   |     |       | X     | X   |      | X    | X                  |
| 858 | 2-Hexanone, 5-methyl                              | X    | X    |      | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 861 | Butanoic acid, 2-ethyl-, methyl ester             |      |      | X    | X    | X   |     |       | X     | X   |      | X    | X                  |
| 867 | 2-Butenoic acid, 2-methyl-, methyl ester, (E)-    |      | X    | X    |      | X   | X   | X     | X     | X   | X    |      | X                  |
| 869 | Pentanoic acid, 2-methyl-, methyl ester           |      |      | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 886 | 1-Propanone, 1-(2-furanyl)                        |      |      |      |      |     |     | X     |       |     | X    |      |                    |
| 888 | Butanethioic acid, S-methyl ester                 | X    | X    | X    | X    | X   |     |       | X     |     | X    | X    |                    |
| 890 | Pentanoic acid, 4-methyl-, methyl ester           |      |      | X    |      | X   | X   | X     | X     |     | X    |      |                    |
| 894 | 5-Hydroxy-4-octanone                              | X    | X    | X    | X    | X   | X   |       | X     | X   | X    | X    | X                  |
| 899 | 2-Heptanol                                        | X    |      |      |      | X   |     |       | X     |     |      | X    |                    |
| 921 | Pentanoic acid, 2,4-dimethyl-, methyl ester       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 925 | Hexanoic acid, methyl ester                       |      |      | X    |      | X   | X   | X     | X     |     | X    | X    | X                  |
| 927 | alpha-Phellandrene                                | X    |      | X    | X    |     |     |       | X     |     | X    |      |                    |
| 929 | 2-Pentenoic acid, 4-methyl-, methyl ester         |      |      |      |      |     | X   |       |       |     | X    |      |                    |
| 935 | alpha-Pinene                                      | X    |      |      | X    | X   | X   |       | X     |     |      |      |                    |
| 935 | 5-Methylhexane-2,4-dione, enol                    | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 939 | 3-Pentenoic acid, 4-methyl-, methyl ester         | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    |                    |
| 940 | S-Methyl 3-methylbutanethioate                    | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 946 | Pentanoic acid, 4-methyl                          | X    | X    | X    | X    | X   |     | X     | X     |     | X    | X    | X                  |

| RI   | Putative compound                                        | 3A18 | 3A41 | 3B40 | 3B44 | W47 | W62 | W75.5 | W75.6 | W99 | W126 | W214 | <i>S. lividans</i> |
|------|----------------------------------------------------------|------|------|------|------|-----|-----|-------|-------|-----|------|------|--------------------|
| 948  | Pentanoic acid, 2-ethyl-, methyl ester                   |      |      | X    | X    | X   | X   |       | X     | X   |      | X    | X                  |
| 951  | Camphene                                                 | X    |      | X    | X    | X   | X   |       | X     |     |      |      |                    |
| 962  | Benzaldehyde                                             |      |      |      |      |     |     |       |       |     |      |      | X                  |
| 965  | Pentanoic acid, 2,4-dimethyl-, methyl ester              | X    | X    |      | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 970  | 1-Heptanol                                               |      |      |      | X    |     |     | X     |       |     |      |      |                    |
| 973  | 5-Methylhexane-2,4-dione, enol                           | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 973  | Dimethyl trisulfide                                      | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 974  | 2,4-Heptanedione                                         | X    | X    |      | X    | X   |     | X     |       |     | X    | X    |                    |
| 976  | Methyl 2-furoate                                         |      |      | X    |      |     | X   |       |       |     |      |      |                    |
| 980  | beta-Pinene                                              | X    |      |      | X    |     | X   |       | X     |     |      |      |                    |
| 982  | 1,3- Cyclopentadiene, 1,3-bis(1-methylethyl)             | X    |      | X    | X    | X   | X   | X     | X     | X   | X    |      | X                  |
| 984  | Pentane, 3-bromo                                         |      |      |      |      |     |     | X     |       |     | X    |      |                    |
| 987  | 3-Octanone                                               | X    | X    |      | X    | X   | X   | X     | X     |     | X    | X    |                    |
| 989  | 2,4- Cycloheptadien-1-one, 2,6,6-trimethyl               | X    |      | X    | X    | X   | X   |       | X     | X   |      |      | X                  |
| 989  | Hexanoic acid, 5-methyl-, methyl ester                   | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 991  | 3(2H)-Thiophenone, dihydro-2-methyl                      |      |      |      |      |     |     | X     |       |     | X    |      |                    |
| 998  | 4-Methylhexanoic acid, methyl ester                      | X    | X    | X    |      | X   | X   | X     | X     |     | X    | X    |                    |
| 1019 | Hexanoic acid, 2,4-dimethyl-, methyl ester, (2DL,4L)     | X    |      | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 1023 | p-Menth-8-ene, 3-methylene                               | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 1026 | Methyl heptanoate                                        | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X                  |
| 1028 | p- Cymene                                                |      |      |      |      |     |     |       | X     |     |      |      |                    |
| 1029 | 1-Hexanol, 2-ethyl                                       |      |      |      |      | X   |     |       |       |     |      |      |                    |
| 1032 | Limonene                                                 | X    |      |      |      |     | X   | X     | X     |     | X    |      |                    |
| 1037 | 1-Heptene, 6-methyl                                      |      |      |      | X    |     |     | X     |       |     | X    |      |                    |
| 1044 | Hexanoic acid, 2-ethyl-, methyl ester                    |      |      |      | X    | X   |     | X     |       |     |      |      | X                  |
| 1044 | Cyclohexanol, 3,3,5-trimethyl-, trans                    |      |      |      |      |     | X   | X     | X     |     | X    |      |                    |
| 1054 | (R)-(-)-4-Methylhexanoic acid                            | X    | X    | X    | X    | X   | X   | X     | X     |     | X    | X    | X                  |
| 1055 | Thiophene, 2-methyl-5-propyl                             | X    |      |      |      | X   |     | X     | X     |     | X    |      |                    |
| 1061 | 7-Methyl-1,6-dioxaspiro[4.5]decane                       |      |      | X    | X    |     |     | X     |       | X   | X    |      | X                  |
| 1063 | gamma-Terpinene                                          | X    |      | X    | X    | X   | X   | X     | X     | X   | X    |      | X                  |
| 1072 | 1-Octanol                                                |      |      |      |      | X   |     | X     |       |     |      |      |                    |
| 1089 | Methyl 6-methyl heptanoate                               |      |      |      |      | X   |     |       |       |     |      | X    |                    |
| 1094 | Terpinolene                                              | X    |      | X    | X    | X   | X   | X     | X     | X   | X    |      | X                  |
| 1095 | 2-Nonanone                                               | X    | X    |      | X    | X   |     | X     |       |     |      |      |                    |
| 1101 | Benzoic acid, methyl ester                               |      | X    | X    | X    | X   | X   |       | X     | X   |      |      | X                  |
| 1102 | 2-Nonanol                                                |      |      |      |      | X   |     |       |       |     |      |      |                    |
| 1103 | 1,6-Octadien-3-ol, 3,7-dimethyl                          |      | X    |      | X    | X   | X   |       |       |     | X    |      |                    |
| 1125 | Heptanoic acid, 2,6-dimethyl-, methyl ester              |      |      | X    | X    | X   | X   |       | X     | X   | X    | X    | X                  |
| 1127 | Octanoic acid, methyl ester                              |      |      | X    |      | X   | X   |       | X     | X   |      | X    |                    |
| 1132 | Cyclohexane, 4-methyl-2-methylene-1-(1-methylethylidene) | X    |      | X    | X    | X   | X   |       | X     |     |      |      |                    |
| 1138 | 1-Octene, 7-methyl                                       |      |      |      | X    |     |     | X     |       |     | X    |      |                    |

[illegible]

| RI   | Putative compound                                                                                                                     | 3A18 | 3A41 | 3B40 | 3B44 | W47 | W62 | W75.5 | W75.6 | W99 | W126 | W214 | S. lividans |
|------|---------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|-----|-----|-------|-------|-----|------|------|-------------|
| 1466 | 4,7-Methanoazulene, 1,2,3,4,5,6,7,8-octahydro-1,4,9,9-tetramethyl-, [1S-(1 $\alpha$ ,4 $\alpha$ ,7 $\alpha$ )]-                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1471 | 1,2-Benzenediol, O-(4-butylbenzoyl)-O'-(isobutoxycarbonyl)                                                                            | X    |      | X    | X    | X   | X   | X     |       | X   | X    |      | X           |
| 1474 | beta-Selinene                                                                                                                         | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1477 | Cadina-1(10),6,8-triene                                                                                                               | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1481 | Zizaene                                                                                                                               | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1482 | 4,11-Epoxy-cis-eudesmane                                                                                                              | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1489 | Methyl 10-methyl-undecanoate                                                                                                          | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1491 | Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-methylethyl)-, (1 $\alpha$ ,4a $\beta$ ,8a $\alpha$ )]-            | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1495 | alpha-Muurolene                                                                                                                       | X    |      | X    | X    | X   | X   | X     |       | X   | X    |      | X           |
| 1499 | Germacrene D                                                                                                                          | X    |      | X    | X    | X   | X   | X     |       | X   | X    |      | X           |
| 1505 | beta-Selinene                                                                                                                         | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1510 | Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, [1R-(1 $\alpha$ ,7 $\beta$ ,8a $\alpha$ )]-               | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1514 | Cubeb-11-ene                                                                                                                          |      | X    |      |      | X   | X   | X     |       | X   | X    |      |             |
| 1521 | 1H-Benzocyclohepten-7-ol, 2,3,4,4a,5,6,7,8-octahydro-1,1,4a,7-tetramethyl-, cis                                                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1523 | Benzene, 1-methoxy-2-methyl                                                                                                           |      | X    |      |      | X   |     |       |       |     | X    |      |             |
| 1526 | Dodecanoic acid, methyl ester                                                                                                         |      |      | X    |      |     |     |       |       | X   |      |      |             |
| 1526 | gamma-Bisabolene, (E)                                                                                                                 | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1528 | Dihydroagarofuran, trans                                                                                                              | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1530 | 4-Epicubebol                                                                                                                          | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1537 | delta-Amorphene                                                                                                                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1541 | Zonarene                                                                                                                              | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1548 | Cedrene                                                                                                                               | X    | X    | X    | X    | X   | X   | X     |       | X   | X    | X    | X           |
| 1553 | alpha- Cadinene                                                                                                                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1560 | alpha- Calacorene                                                                                                                     | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1563 | 2-Tetradecanone                                                                                                                       | X    | X    | X    | X    | X   | X   | X     |       | X   | X    | X    | X           |
| 1568 | alpha-Agarofuran                                                                                                                      | X    | X    | X    | X    | X   | X   | X     |       | X   | X    | X    | X           |
| 1571 | 2-Tetradecanone                                                                                                                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1592 | 7- Caryophyllen-6-ol                                                                                                                  |      | X    | X    |      |     | X   |       |       | X   | X    |      |             |
| 1596 | Methyl 10-methyl-dodecanoate                                                                                                          | X    | X    | X    | X    | X   | X   | X     |       | X   | X    |      | X           |
| 1606 | 2-Naphthalenemethanol, 2,3,4,4a,5,6,7,8-octahydro- $\alpha$ , $\alpha$ ,4a,8-tetramethyl-, [2R-(2 $\alpha$ ,4a $\beta$ ,8 $\beta$ )]- | X    | X    | X    | X    | X   | X   | X     |       | X   | X    |      | X           |
| 1646 | Cubenol                                                                                                                               |      | X    |      |      |     | X   | X     |       |     | X    | X    | X           |
| 1658 | 2-Naphthalenemethanol, decahydro- $\alpha$ , $\alpha$ ,4a-trimethyl-8-methylene-, [2R-(2 $\alpha$ ,4a $\alpha$ ,8a $\beta$ )]-        | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    |      | X           |
| 1664 | 2-Pentadecanone                                                                                                                       | X    | X    | X    | X    | X   | X   | X     | X     | X   | X    | X    | X           |
| 1682 | 7-epi-alpha-Selinene                                                                                                                  | X    | X    | X    |      |     | X   | X     | X     | X   | X    |      | X           |
| 1699 | Heptadecane                                                                                                                           |      |      |      |      |     | X   |       |       |     |      |      |             |
| 1699 | Phenol, 2,4-di-t-butyl-6-nitro                                                                                                        | X    |      | X    |      | X   | X   | X     |       | X   | X    |      | X           |
| 1717 | 2,2,7,7-Tetramethyltricyclo[6.2.1.0(1,6)]undec-4-en-3-one                                                                             | X    |      |      | X    |     | X   | X     | X     | X   | X    | X    | X           |
| 1890 | Acetic acid, methoxy-, methyl ester                                                                                                   |      | X    | X    |      |     |     |       |       | X   | X    | X    | X           |
| 1940 | Cembrene                                                                                                                              |      |      | X    |      |     |     |       |       | X   |      |      |             |

| RI   | Putative compound                                                                             | 3A18 | 3A41 | 3B40 | 3B44 | W47 | W62 | W75.5 | W75.6 | W99 | W126 | W214 | <i>S. lividans</i> |
|------|-----------------------------------------------------------------------------------------------|------|------|------|------|-----|-----|-------|-------|-----|------|------|--------------------|
| 2038 | Bicyclo[9.3.1]pentadeca-3,7-dien-12-ol, 4,8,12,15,15-pentamethyl-, [1R-(1R*,3E,7E,11R*,12R*)] |      | X    | X    | X    |     | X   | X     |       | X   |      |      | X                  |