

Table S1. Genomes used in this study.

| No. | Specie                                | NCBI ID         | Strain       | Size (Mbp) |
|-----|---------------------------------------|-----------------|--------------|------------|
| 1   | <i>Colletotrichum gloeosporioides</i> | GCA_021432615.1 | 23           | 58.84      |
| 2   | <i>Colletotrichum gloeosporioides</i> | GCA_000446055.1 | Cg-14        | 53.21      |
| 3   | <i>Colletotrichum gloeosporioides</i> | GCA_011800055.1 | Lc1          | 61.90      |
| 4   | <i>Colletotrichum gloeosporioides</i> | GCA_021650765.1 | CgDa01       | 62.78      |
| 5   | <i>Colletotrichum chlorophyti</i>     | GCA_001937105.1 | NTL11        | 52.39      |
| 6   | <i>Colletotrichum filicis</i>         | GCA_023376865.1 | CBS 101611   | 62.97      |
| 7   | <i>Colletotrichum fioriniae</i>       | GCA_000582985.1 | PJ7          | 49.00      |
| 8   | <i>Colletotrichum fruticola</i>       | GCA_009771025.1 | CGMCC3.17371 | 58.06      |
| 9   | <i>Colletotrichum fruticola</i>       | GCA_012932255.1 | Cg38 S1      | 58.95      |
| 10  | <i>Colletotrichum fruticola</i>       | GCA_013201875.1 | CfS4         | 57.43      |
| 11  | <i>Colletotrichum fruticola</i>       | GCA_013201905.1 | Cf415        | 56.01      |
| 12  | <i>Colletotrichum fruticola</i>       | GCA_013201925.1 | Cf245        | 56.06      |
| 13  | <i>Colletotrichum fruticola</i>       | GCA_013390205.1 | Cf413        | 56.53      |
| 14  | <i>Colletotrichum fruticola</i>       | GCA_000319635.1 | Nara gc5     | 55.61      |
| 15  | <i>Colletotrichum fruticola</i>       | GCA_000319635.2 | Nara gc5     | 59.54      |
| 16  | <i>Colletotrichum abscissum</i>       | GCA_023376855.1 | Ca142        | 54.00      |
| 17  | <i>Colletotrichum aenigma</i>         | GCA_013390185.1 | Cg56         | 59.19      |
| 18  | <i>Colletotrichum asianum</i>         | GCA_009806415.1 | ICMP 18580   | 64.73      |
| 19  | <i>Colletotrichum camelliae</i>       | GCA_011947485.2 | CcLH18       | 57.80      |
| 20  | <i>Colletotrichum graminicola</i>     | GCA_000149035.1 | M1.001       | 51.60      |
| 21  | <i>Colletotrichum higginsianum</i>    | GCA_000313795.2 | IMI 349063   | 49.08      |
| 22  | <i>Colletotrichum higginsianum</i>    | GCA_004920355.1 | MAFF30563    | 49.79      |
| 23  | <i>Colletotrichum higginsianum</i>    | GCA_023705605.1 | MAFF 245053  | 49.07      |
| 24  | <i>Colletotrichum higginsianum</i>    | GCA_001672515.1 | IMI 349063   | 50.72      |
| 25  | <i>Colletotrichum incanum</i>         | GCA_001625285.1 | MAFF 238704  | 53.60      |
| 26  | <i>Colletotrichum incanum</i>         | GCA_001855235.1 | MAFF238712   | 53.25      |
| 27  | <i>Colletotrichum karsti</i>          | GCA_011947395.2 | CkLH20       | 51.85      |
| 28  | <i>Colletotrichum liriopes</i>        | GCA_022179045.1 | MAFF 242679  | 52.97      |
| 29  | <i>Colletotrichum lupini</i>          | GCA_023278565.1 | IMI 504893   | 63.41      |
| 30  | <i>Colletotrichum musicola</i>        | GCA_014235935.1 | LFN0074      | 52.73      |
| 31  | <i>Colletotrichum nymphaeae</i>       | GCA_001563115.1 | SA-01        | 49.96      |
| 32  | <i>Colletotrichum orbiculare</i>      | GCA_000350065.2 | 104-T        | 89.75      |
| 33  | <i>Colletotrichum orchidophilum</i>   | GCA_001831195.1 | IMI 309357   | 48.56      |
| 34  | <i>Colletotrichum plurivorum</i>      | GCA_014235945.1 | LFN00145     | 49.70      |
| 35  | <i>Colletotrichum salicis</i>         | GCA_001563125.1 | CBS 607.94   | 48.37      |
| 36  | <i>Colletotrichum scovillei</i>       | GCA_011075155.1 | TJNH1        | 52.00      |
| 37  | <i>Colletotrichum scovillei</i>       | GCA_018906675.1 | Coll-365     | 49.92      |
| 38  | <i>Colletotrichum scovillei</i>       | GCA_018906765.1 | Coll-153     | 50.11      |
| 39  | <i>Colletotrichum scovillei</i>       | GCA_018907675.1 | Coll-524     | 51.49      |
| 40  | <i>Colletotrichum shioi</i>           | GCA_006783085.1 | PG-2018a     | 69.67      |
| 41  | <i>Colletotrichum siamense</i>        | GCA_013201745.1 | CAD2         | 58.15      |
| 42  | <i>Colletotrichum siamense</i>        | GCA_013201755.1 | CAD5         | 58.40      |

|    |                                   |                 |             |       |
|----|-----------------------------------|-----------------|-------------|-------|
| 43 | <i>Colletotrichum siamense</i>    | GCA_013201795.1 | CAD4        | 58.15 |
| 44 | <i>Colletotrichum siamense</i>    | GCA_013201865.1 | CAD1        | 58.40 |
| 45 | <i>Colletotrichum siamense</i>    | GCA_013390195.1 | Cg363       | 62.94 |
| 46 | <i>Colletotrichum sidae</i>       | GCA_004367935.1 | CBS 518.97  | 86.83 |
| 47 | <i>Colletotrichum simmondsii</i>  | GCA_001563135.1 | CBS122122   | 50.47 |
| 48 | <i>Colletotrichum sojae</i>       | GCA_014235955.1 | LFN0009     | 49.35 |
| 49 | <i>Colletotrichum spaethianum</i> | GCA_022836535.1 | MAFF 239500 | 50.92 |
| 50 | <i>Colletotrichum spinosum</i>    | GCA_004366825.1 | CBS 515.97  | 82.73 |
| 51 | <i>Colletotrichum sublineola</i>  | GCA_000696135.1 | TX430BB     | 46.76 |
| 52 | <i>Colletotrichum tanacetii</i>   | GCA_005350895.1 | BRIP57314   | 57.91 |
| 53 | <i>Colletotrichum tofieldiae</i>  | GCA_001625265.1 | 0861        | 52.84 |
| 54 | <i>Colletotrichum tofieldiae</i>  | GCA_022836555.1 | MAFF 712333 | 54.25 |
| 55 | <i>Colletotrichum tofieldiae</i>  | GCA_022836575.1 | MAFF 712334 | 53.98 |
| 56 | <i>Colletotrichum tofieldiae</i>  | GCA_022836595.1 | 0861        | 52.99 |
| 57 | <i>Colletotrichum trifolii</i>    | GCA_004367215.1 | 543-2       | 109.7 |
| 58 | <i>Colletotrichum tropicale</i>   | GCA_013201785.1 | CgS9275     | 55.85 |
| 59 | <i>Colletotrichum truncatum</i>   | GCA_014235925.1 | CMES1059    | 56.10 |
| 60 | <i>Colletotrichum viniferum</i>   | GCA_013201765.1 | CGW01       | 68.45 |