**Table S1:** Details of the 120 sequences used in the phylogenetic tree.

| | | Taxon | Culture/Strain code | Genbank number | Base pairs |
|---|---|---|---|---|---|
| *COLLETOTRICHUM* GENUS | 1 | *Colletotrichum gloeosporioides* | Cg-03 | FJ940734 | 580 |
| | 2 | *Colletotrichum gloeosporioides* | CG03 | KJ632401 | 564 |
| | 3 | *Colletotrichum gloeosporioides* | MEBP0008 | MT597824 | 582 |
| | 4 | *Colletotrichum gloeosporioides* | SDAU-08-77 | FJ550213 | 574 |
| | 5 | *Colletotrichum gloeosporioides* | HBwh-2 | HQ645073 | 579 |
| | 6 | *Colletotrichum gloeosporioides* | CgloTIN03 | KF053199 | 579 |
| | 7 | *Colletotrichum gloeosporioides* | FD | KX022496 | 583 |
| | 8 | *Colletotrichum gloeosporioides* | MEBP 0131 | MT672564 | 565 |
| | 9 | *Colletotrichum gloeosporioides* | Ry_Wj03 | PP808952 | 576 |
| | 10 | *Colletotrichum gloeosporioides* | SY | KX022506 | 587 |
| | 11 | *Colletotrichum gloeosporioides* | CCGHN03 | GQ424104 | 575 |
| | 12 | *Colletotrichum gloeosporioides* | 79CA/S | GU066652 | 574 |
| | 13 | *Colletotrichum gloeosporioides* | CG14 | KJ632428 | 563 |
| | 14 | *Colletotrichum gloeosporioides* | SA1 | KU662388 | 575 |
| | 15 | *Colletotrichum gloeosporioides* | Cg-20 | HM161642 | 579 |
| | 16 | *Colletotrichum gloeosporioides* | C18 | KC010549 | 583 |
| | 17 | *Colletotrichum gloeosporioides* | CIMAP : 72013 | KJ617392 | 575 |
| | 18 | *Colletotrichum gloeosporioides* | LB | KX022503 | 583 |
| | 19 | *Colletotrichum gloeosporioides* | C-1001 | KY474341 | 574 |
| | 20 | *Colletotrichum gloeosporioides* | B3159 | MT043781 | 576 |
| | 21 | *Colletotrichum musae* | ZCL2 | KX347473 | 537 |
| | 22 | *Colletotrichum musae* | 8Ahv | MF171152 | 537 |
| | 23 | *Colletotrichum musae* | cm1 | PQ289237 | 536 |
| | 24 | *Colletotrichum musae* | UNBF25 | LC565438 | 552 |
| | 25 | *Colletotrichum musae* | LC0962 | JN943076 | 538 |
| | 26 | *Colletotrichum fructicola* | MST 5M1-1 | KJ883597 | 599 |
| | 27 | *Colletotrichum fructicola* | yc03 | MF540883 | 613 |
| | 28 | *Colletotrichum fructicola* | TARI-F217125 | MW492609 | 599 |
| | 29 | *Colletotrichum fructicola* | MD-1 | ON692784 | 599 |
| | 30 | *Colletotrichum fructicola* | YCPIC1 | OP862812 | 599 |
| | 31 | *Colletotrichum capsici* | R11 | DQ454016 | 552 |
| | 32 | *Colletotrichum capsici* | Skp4 | DQ454024 | 552 |
| | 33 | *Colletotrichum capsici* | SDAU08-4 | EU979361 | 580 |
| | 34 | *Colletotrichum capsici* | SL204a | FJ968578 | 538 |
| | 35 | *Colletotrichum capsici* | BV14 | FJ968579 | 551 |
| | 36 | *Colletotrichum falcatum* | CoC671 | KP184444 | 559 |
| | 37 | *Colletotrichum falcatum* | cf01 | KU220959 | 555 |
| | 38 | *Colletotrichum falcatum* | cfPAR-3 | KP205441 | 558 |
| | 39 | *Colletotrichum falcatum* | I-29 | MN636346 | 540 |
| | 40 | *Colletotrichum falcatum* | RR01 | KU220961 | 556 |
| | | | | | |
| | 1 | *Fusarium equiseti* | 15 | MW580412 | 558 |
| | 2 | *Fusarium equiseti* | Sample-263 | OQ421773 | 574 |
| | 3 | *Fusarium equiseti* | C1/32 | KM246255 | 585 |
| | 4 | *Fusarium equiseti* | C1646 | KY910880 | 571 |
| | 5 | *Fusarium equiseti* | CL05 | OP247732 | 571 |
| | 6 | *Fusarium equiseti* | Sample-240 | OQ421752 | 574 |
| | 7 | *Fusarium equiseti* | G389 | KR094458 | 564 |
| | 8 | *Fusarium equiseti* | W1179 | KY910878 | 564 |

| | | | | | |
|---|---|---|---|---|---|
| *FUSARIUM* GENUS | 9 | *Fusarium equiseti* | C4 | AY147363 | 556 |
| | 10 | *Fusarium equiseti* | PAK-5 small | MH054915 | 563 |
| | 11 | *Fusarium equiseti* | XSD-80 | EU326202 | 573 |
| | 12 | *Fusarium equiseti* | E-522 | KU059931 | 556 |
| | 13 | *Fusarium equiseti* | CBS:150.25 | MH854825 | 553 |
| | 14 | *Fusarium equiseti* | CBS:126202 | MH864013 | 554 |
| | 15 | *Fusarium equiseti* | FQ01 | MN133053 | 572 |
| | 16 | *Fusarium equiseti* | SY20-1-1 | MT428185 | 574 |
| | 17 | *Fusarium equiseti* | GFR10 | MT447515.1 | 585 |
| | 18 | *Fusarium equiseti* | MCC3 | OM319699 | 562 |
| | 19 | *Fusarium equiseti* | Sample-233 | OQ421745 | 573 |
| | 20 | *Fusarium equiseti* | LYF004 | HQ176430 | 542 |
| | 21 | *Fusarium solani* | Sample 44 | OL998444 | 499 |
| | 22 | *Fusarium solani* | FSNGR231 | HQ651162 | 523 |
| | 23 | *Fusarium solani* | GL09415 | JX241656 | 576 |
| | 24 | *Fusarium solani* | OUCMBI110106 | KP269017 | 567 |
| | 25 | *Fusarium solani* | D01 | KT192216 | 568 |
| | 26 | *Fusarium verticillioides* | CBS:128816 | MH865159 | 522 |
| | 27 | *Fusarium verticillioides* | UZ487 | KM396284 | 570 |
| | 28 | *Fusarium verticillioides* | BPFus | KM434131 | 571 |
| | 29 | *Fusarium verticillioides* | NSH-5 | KX853851 | 532 |
| | 30 | *Fusarium verticillioides* | 40 | OP060708 | 570 |
| | 31 | *Fusarium culmorum* | 2090 | KC577191 | 548 |
| | 32 | *Fusarium culmorum* | FclStWIN2 | KJ466109 | 535 |
| | 33 | *Fusarium culmorum* | G49 | MH681147 | 546 |
| | 34 | *Fusarium culmorum* | GPEB-68 | PQ152010 | 522 |
| | 35 | *Fusarium culmorum* | 1067 | PQ814365 | 549 |
| | 36 | *Fusarium proliferatum* | NRRL 31071 | AF291061 | 596 |
| | 37 | *Fusarium proliferatum* | 14 | EU839366 | 568 |
| | 38 | *Fusarium proliferatum* | PP74 | FJ884099 | 506 |
| | 39 | *Fusarium proliferatum* | 08405 | KJ020897 | 585 |
| | 40 | *Fusarium proliferatum* | CBS 263.54 | KM231815 | 572 |
| | | | | | |
| *LASIODIPLO* | 1 | *Lasiodiplodia theobromae* | MCRT6 | OM327670 | 580 |
| | 2 | *Lasiodiplodia theobromae* | MML4305 | MH049696 | 590 |
| | 3 | *Lasiodiplodia theobromae* | AND01 | PP980994 | 565 |
| | 4 | *Lasiodiplodia theobromae* | L3 | MN180881 | 573 |
| | 5 | *Lasiodiplodia theobromae* | CBS 111530 | FJ150695 | 668 |
| | 6 | *Lasiodiplodia theobromae* | UMAF A19112 | OR964267 | 611 |
| | 7 | *Lasiodiplodia theobromae* | EucN188 | FJ904840 | 582 |
| | 8 | *Lasiodiplodia theobromae* | Lee AgF1-10-3 | MH793568 | 571 |
| | 9 | *Lasiodiplodia theobromae* | JIT01 | PP980995 | 555 |
| | 10 | *Lasiodiplodia theobromae* | MEPK0101 | PQ459379 | 547 |
| | 11 | *Lasiodiplodia theobromae* | / | FJ904912 | 580 |
| | 12 | *Lasiodiplodia theobromae* | PHLO9 | KC964546 | 565 |
| | 13 | *Lasiodiplodia theobromae* | HN mango 12 | KM925042 | 554 |
| | 14 | *Lasiodiplodia theobromae* | UAOLM18LMM1 | MK166048 | 546 |
| | 15 | *Lasiodiplodia theobromae* | 3b | OL375405 | 580 |
| | 16 | *Lasiodiplodia theobromae* | ICMP 22643 | ON248563 | 580 |
| | 17 | *Lasiodiplodia theobromae* | AAM | PP434792 | 583 |
| | 18 | *Lasiodiplodia theobromae* | LTMTP | MW590683 | 577 |
| | 19 | *Lasiodiplodia theobromae* | KEN5 | OL470878 | 562 |
| | 20 | *Lasiodiplodia theobromae* | K10 | OR707902 | 580 |

| | | | | | |
|---|---|---|---|---|---|
| *DIA* GENUS | 21 | *Lasiodiplodia brasiliensis* | CMM 4015 | NR_147338 | 546 |
| | 22 | *Lasiodiplodia brasiliensis* | CMM 0264 | KJ417851 | 545 |
| | 23 | *Lasiodiplodia brasiliensis* | A2 | MT784901 | 553 |
| | 24 | *Lasiodiplodia brasiliensis* | A2A | MT784902 | 553 |
| | 25 | *Lasiodiplodia brasiliensis* | CFMS1342 | MF952733 | 568 |
| | 26 | *Lasiodiplodia hormozganensis* | 5a | OL375406 | 580 |
| | 27 | *Lasiodiplodia hormozganensis* | 5b | OL375407 | 580 |
| | 28 | *Lasiodiplodia hormozganensis* | 6a | OL375408 | 580 |
| | 29 | *Lasiodiplodia hormozganensis* | 6b | OL375409 | 580 |
| | 30 | *Lasiodiplodia hormozganensis* | CMM3986 | JX464085 | 545 |
| | 31 | *Lasiodiplodia jatrophicola* | DSYWK05 | KP297435 | 536 |
| | 32 | *Lasiodiplodia jatrophicola* | LASID3 | KU507480 | 542 |
| | 33 | *Lasiodiplodia jatrophicola* | COUFAL0159 | MH251948 | 528 |
| | 34 | *Lasiodiplodia jatrophicola* | GTNL1 | KX852315 | 515 |
| | 35 | *Lasiodiplodia jatrophicola* | GTNL2 18S | KX852316 | 515 |
| | 36 | *Lasiodiplodia iranensis* | CMW25225 | KU997380 | 523 |
| | 37 | *Lasiodiplodia iranensis* | CMW25227 | KU997381 | 533 |
| | 38 | *Lasiodiplodia iranensis* | MTZ44 | KY052956 | 526 |
| | 39 | *Lasiodiplodia iranensis* | RB31 | KY052971 | 582 |
| | 40 | *Lasiodiplodia iranensis* | UACH275 | MH271621 | 535 |