**Table S1:**Accession numbers of *Fusarium*s pp. strains deposited in NCBI GenBank

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.. no** | **Isolate** | **Accession number** | **Identity** |  | **Latitude** | **Longitude** |
|  | Raichur | ON385434 | *Fusarium verticillioides* | *KN* | 16° 09' 31.54" N  | 76° 31' 18.26" E |
|  | F4 | ON385435 | *Fusarium fujikuroi* var *moniliformis* | *MP* | 22° 43' 41.0052'' N | 74° 33' 38.1096'' E |
|  | F7 | ON385436 | *Fusarium verticillioides*  | *RJ* | 23° 45' 50.7816'' N | 74° 26' 49.5096'' E |
|  | **F13**  | **ON385437** | *Fusarium verticillioides* | *RJ* | 24° 5' 4.9524'' N | 74° 31' 35.9364'' E |
|  | F20 | ON385438 | *Fusarium verticillioides* | *MP* | 22° 36' 21.2292'' N | 74° 32' 56.706'' E |
|  | F3 | ON385439 | *Fusarium verticillioides* | *RJ* | 23° 28' 33.0348'' N | 73° 59' 15.6264'' E |
|  | F23 | **ON385538** | *Fusarium verticillioides* | *GJ* | 22° 30' 31.5036'' N | 73° 22' 42.8016'' E |
|  | F17 | ON385540 | *Fusariumverticillioides* | *RJ* | 23° 53' 29.3568'' N | 74° 49' 22.116'' E |
|  | F34 | ON457739 | *Fusariumverticillioides* | *RJ* | 23° 22' 51.6828'' N | 74° 1' 53.688'' E |
|  | F47 | ON457740 | *Fusarium verticillioides* | *GJ* | 22° 46' 36.9768'' N | 73° 30' 37.0872'' E |
|  | FuR15 | ON457741 | *Fusarium verticillioides* | *RJ* | 23°33’41.85” N | 74°28’14.97” E |
|  | F59 | OP748382 | *Fusarium verticillioides* | *GJ* | 22° 53' 26.4948'' N | 74° 19' 40.2096'' E |
|  | F21 | OP748376 | *Fusarium verticillioides* | *RJ* | 23° 30' 38.8944"N | 74° 22' 45.807" E |
|  | FUR10 | OP725847 | *Fusarium verticillioides* | *RJ* | 23°27’43.6” N | 74°22’17.19” E |
|  | W3-2 | OP725848 | *Fusarium verticillioides* | *TS* | 18° 0' 0.1980'' N | 79° 35' 17.3940'' E |
|  | F12 | OP725850 | *Fusarium verticillioides* | *RJ* | 23° 29' 32.2656'' N | 74° 26' 16.1088'' E |
|  | F32 | OP725846 | *Fusarium verticillioides* | *RJ* | 23° 39' 53.874'' N | 74° 23' 23.0496'' E |
|  | B1-1 | OP750496 | *Fusarium verticillioides* | *KN* | 16° 30' 15.5838"N | 75° 17' 30.2706" E |
|  | G1-3 | OP748378 | *Fusarium verticillioides* | *KN* | 16 ° 10 '0.1200' 'N  | 74 ° 49 '59.8728' 'E |
|  | Davangere | OP748381  | *Fusarium verticillioides* | *KN* | 14°31 '49.6452''N  | 75 ° 48 '3.9384''E |
|  | F1 | OQ957226 | *Fusarium verticillioides* | *RJ* | 23° 46' 9.3324'' N | 74° 38' 50.9244'' E |
|  | FUG 9 | OP748380 | *Fusarium verticillioides* | *GJ* | 23°13’41.45” N  | 72°35’17.84 E |
|  | F36 | OP661212 | *Fusarium verticillioides* | *GJ* | 22° 39' 57.5172'' N | 73° 33' 16.074'' E |
|  | FUG2 | OQ957227 | *Fusarium verticillioides* | *GJ* | 23° 5' 49.68'' N  | 74° 9' 49.97'' E |
|  | F6 | OP661213 | *Fusarium verticillioides* | *RJ* | 23° 23' 39.7824'' N | 74° 22' 59.8116'' E |
|  | FUG 6 | OQ957222 | *Fusarium verticillioides* | *GJ* | 22°26’17.63” N | 73°35’19.64” E |
|  | FUG10 | OQ957223 | *Fusarium verticillioides* | *GJ* | 22° 18' 37.9368'' N | 73° 25' 54.1992'' E |
|  | F18 | OP651068 | *Fusarium andiyazi* | *RJ* | 23° 15' 13.7016'' N | 74° 17' 25.5588'' E |
|  | F58 | OP661214 | *Fusarium andiyazi* | *GJ* | 23° 5' 34.7892'' N | 74° 11' 21.8508'' E |
|  | Mysore | OQ957225 | *Fusarium proliferatum* | *KN* | 12° 47' 10.4352''N | 75° 12' 1.9404''E |
|  | F43 | OQ957224 | *Fusarium proliferatum* | *RJ* | 23° 27' 20.7576'' N | 74° 24' 58.1868'' E |
|  | F49 | OQ957221 | *Fusarium proliferatum* | *RJ* | 23° 44' 45.2832'' N | 74° 25' 53.328'' E |
|  | F52 | OP651067 | *Fusarium nygamai* | *RJ* | 23° 23' 5.5212'' N | 74° 18' 36.0036'' E |
|  | F27 | OP748379 | *Fusarium acutatum* | *RJ* | 23° 26' 18.1104'' N | 74° 7' 10.8732'' E |
|  | F10 | OP748383 | *Fusarium acutatum* | *RJ* | 23° 27' 10.8396''N | 74° 20' 54.5244'' E |
|  | FUR11 | OP725849 | *Fusarium acutatum* | *RJ* | 23°17’33.6” N | 74° 25’17.19” E |
|  | FUR13 | OP748377 | *Fusarium acutatum* | *RJ* | 23°44’12.23” N | 74°12’14.97” E |
|  | F28 | ON385539 | *Fusarium acutatum* | *RJ* | 23° 36' 0.6192'' N | 74° 19' 38.5572'' E |

**Table S2:** Gene flow estimates

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| **Haplotype data information** |
| Nei’s GST | Nm |
| 0.62732 | 0.15 |
| **Sequence data information** |
| Nei’s DST | GST |
| 0.002285 | 0.97567 |
| Lynch and Crease, 1990 |  |
| NST | Nm |
| Hudson, Slatkin and Maddison 1992 |  |
| FST | Nm |
| 0.98890 | 0.00 |