

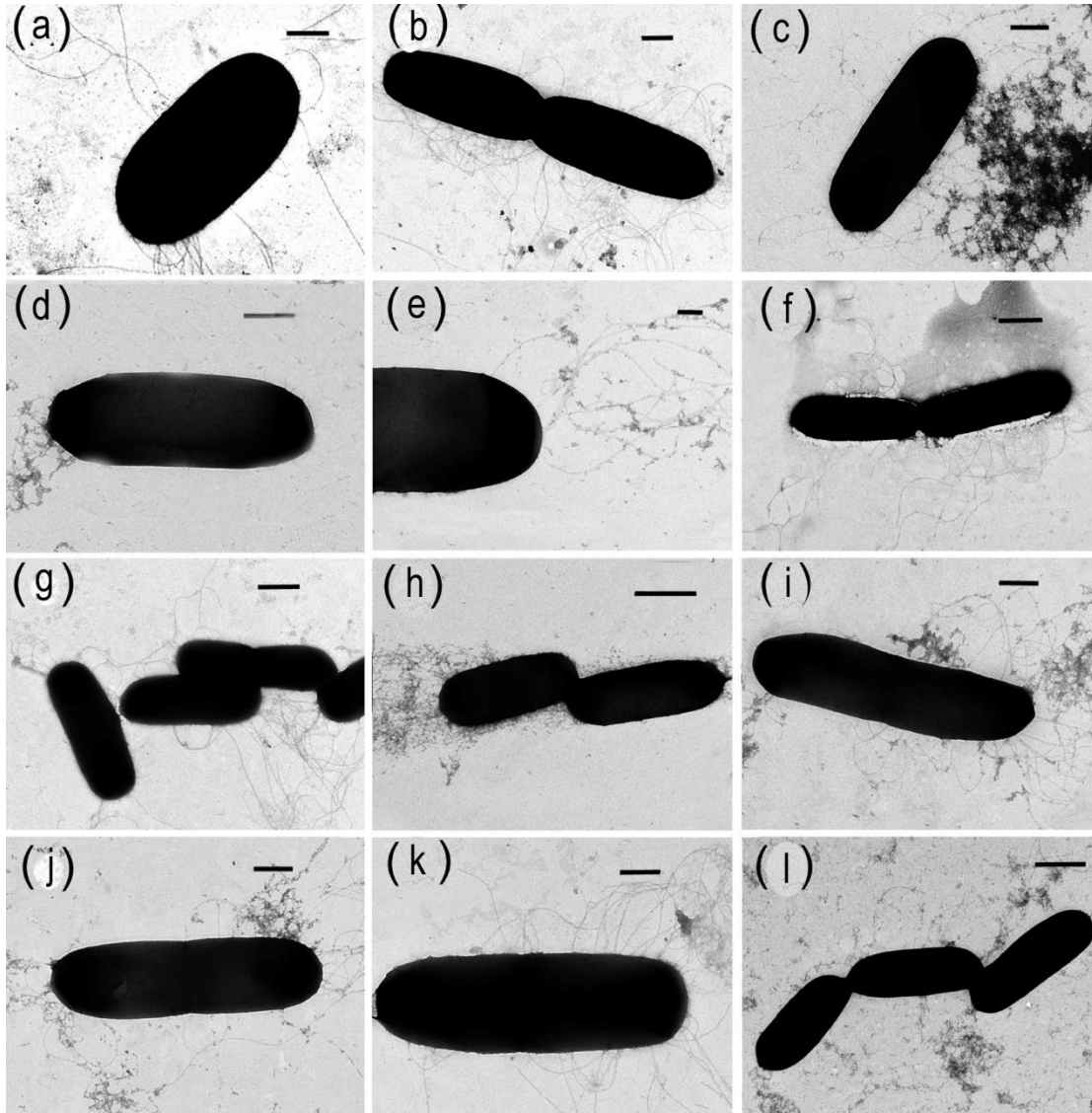


Figure S1: The scanning electron microscopy micrographs of the 11 strains. A. IMA4. B. IMA7. C. IMA11. D–E. IMA3. F. IMA5. G. IMA1. H. IMA2. I. IMA6. J. IMA8. K. IMA9. L. IMA10. Scale bars: A, B, C, D, F, I, J, K = 0.5 $\mu$ m, G, H, L = 1.5  $\mu$ m.

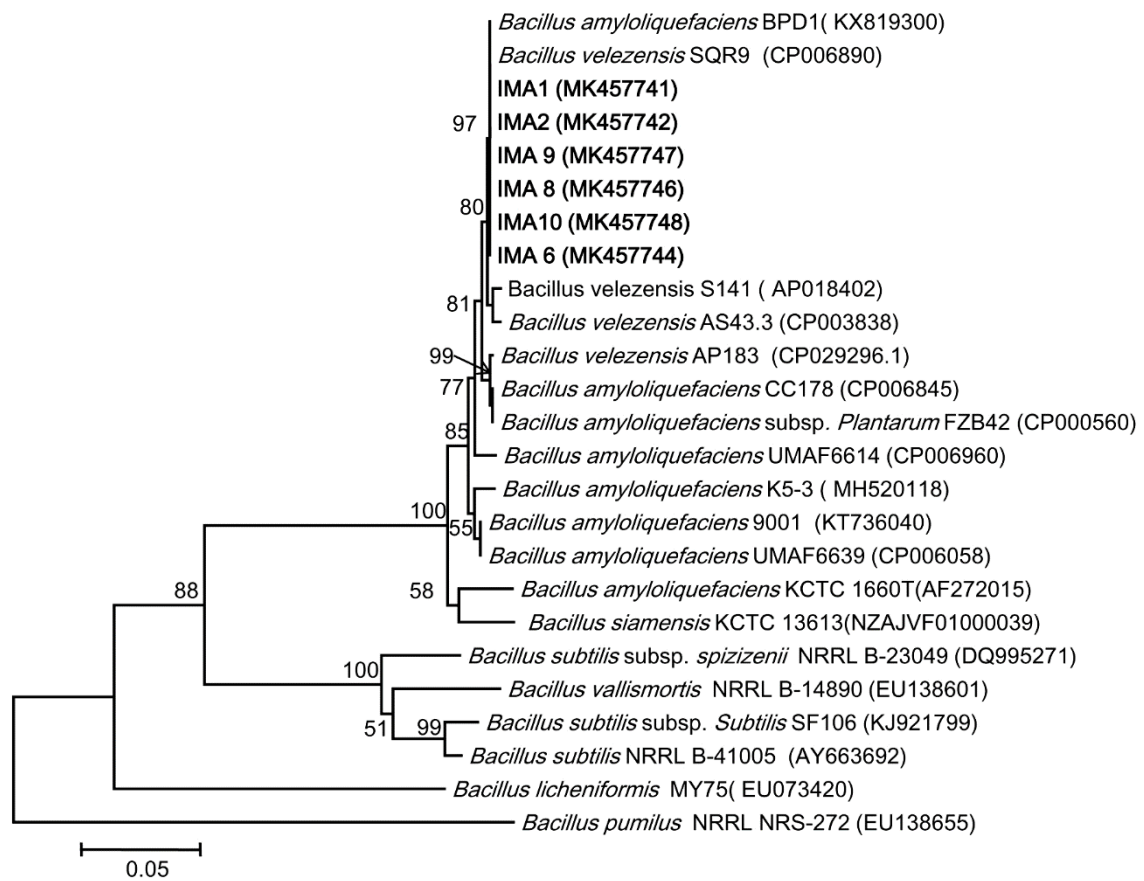


Figure S2: Phylogenetic tree generated from neighbor-joining method from *gyrA* gene sequences of 25 taxa of *Bacillus*. Bootstrap values supporting the branches are shown at nodes and branch lengths are proportional to divergence. Strains isolated from rhizosphere soil of eggplant plants are shown in bold.

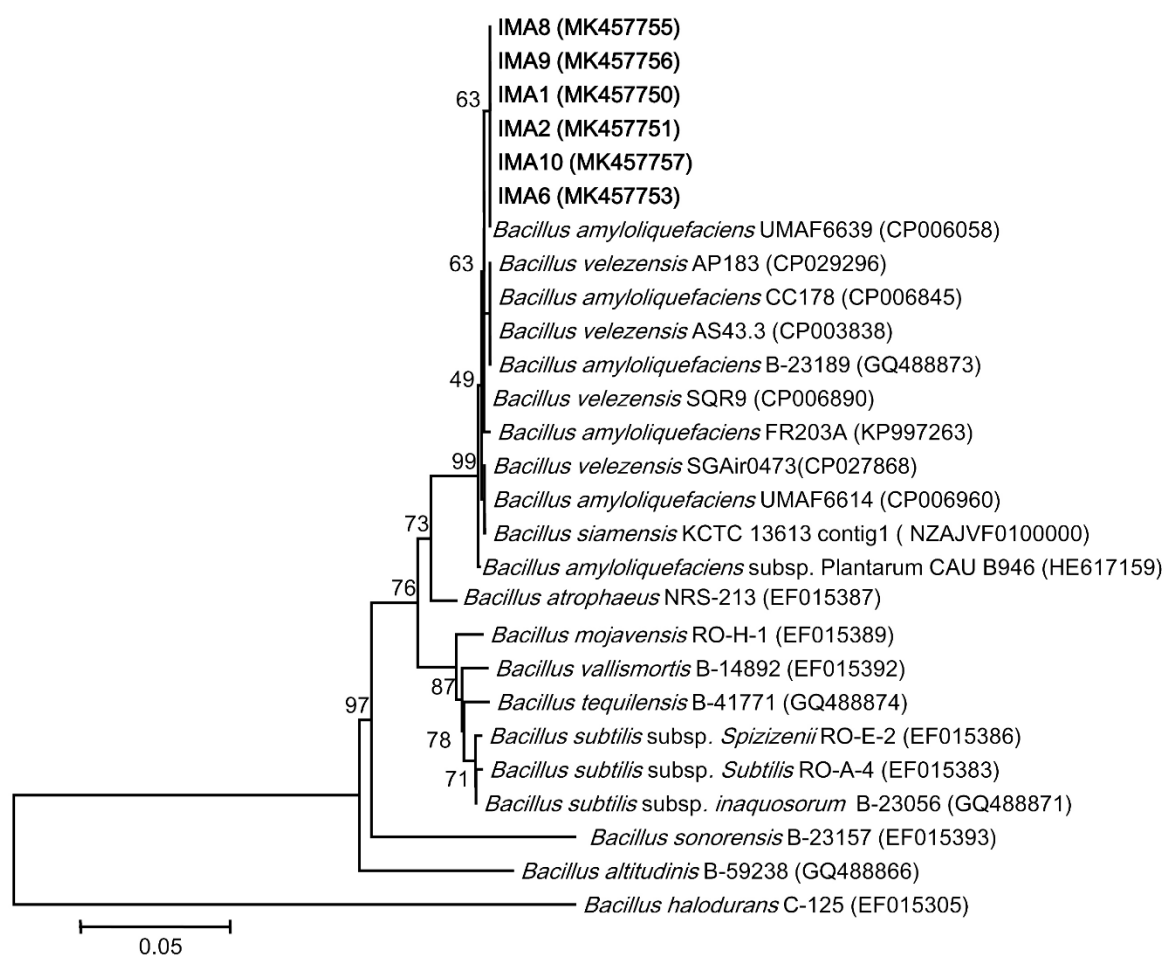


Figure S3: Phylogenetic tree generated from neighbor-joining method from *gyrB* gene sequences of 27 taxa of *Bacillus*. Bootstrap values supporting the branches are shown at nodes and branch lengths are proportional to divergence. Strains isolated from rhizosphere soil of eggplant plants are shown in bold.

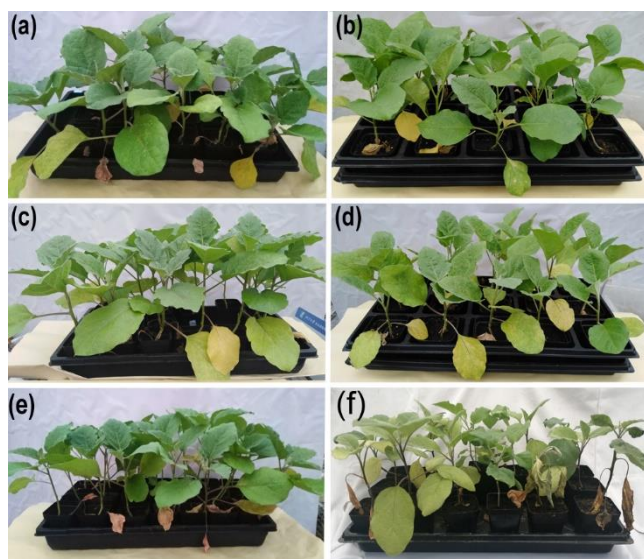


Figure S4: Symptoms on eggplant plants inoculated by dipping roots with YY06 (*R. solanacearum*) and different bacterial strains 30 days after inoculation. (a) Co-inoculation with YY06+ IMA5 (*Paenibacillus polymyxa*). (b) Co-inoculation with YY06+ IMA3 (*Pseudomonas putida*). (c) Co-inoculation with YY06+ IMA2 (*Bacillus amyloliquefaciens*). (d) Co-inoculation with YY06+ IMA8 (*Bacillus amyloliquefaciens*). (e) Co-inoculation with YY06+ IMA4 (*Bacillus cereus*). (f) Inoculation with YY06.

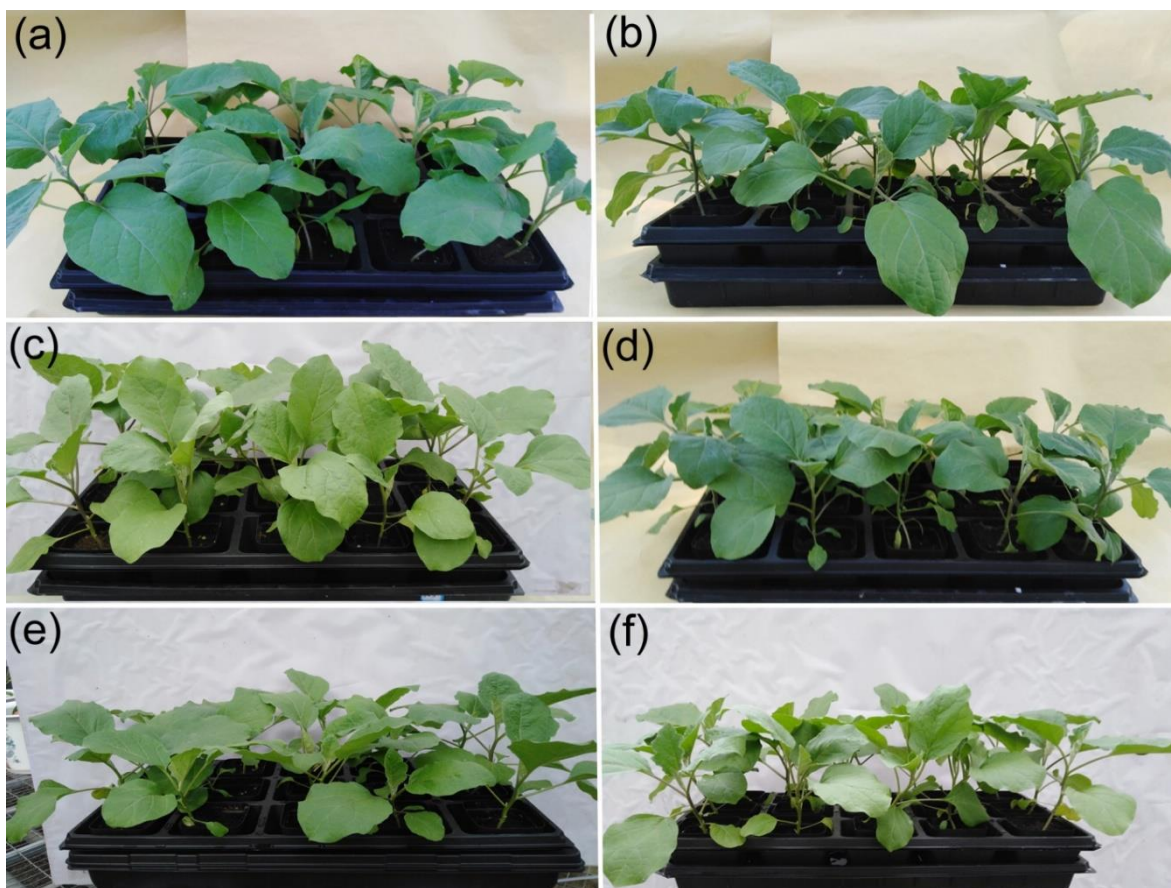


Figure S5: Efficacy of eggplant plant growth promotion inoculated with different bacterial strains 30 days after inoculation. (a) Inoculation with IMA5 (*Paenibacillus polymyxa*). (b) Inoculation with IMA3 (*pseudomonas putida*) (IMA3) (c) Inoculation with IMA2 (*Bacillus amyloliquefaciens*). (d) Inoculation with IMA8 (*Bacillus amyloliquefaciens*). (e) Inoculation with IMA4 (*Bacillus cereus*). (f) Inoculation with sterile water.

**Table S1:** Lipopeptides detected by MALDI-TOF mass spectrometry from 11 strains.

| Species ( strains )           | Peak (M/Z) | Family             | Assignment       | References |
|-------------------------------|------------|--------------------|------------------|------------|
| <i>Pseudomonas putida</i>     |            |                    |                  |            |
| IMA3                          | 1105.602   | Syringactin A*     | $[M + H + Na]^+$ | [1]        |
|                               | 1138.592   | Nunamycin          | $[M+H]^+$        | [2]        |
|                               | 1436.723   | putisolvin II      | $[M+3H+K]^+$     | [3]        |
|                               | 1562.846   | penta-acyl lipid A | L-Ara4N          | [4]        |
|                               | 1693.901   | penta-acyl lipid A | two L-Ara4N      | [4]        |
|                               | 1763.976   | xantholysin B      | $[M+3H]^+$       | [5]        |
|                               | 1802.856   | xantholysin C      | $[M+H]^+$        | [5]        |
| <i>Paenibacillus polymyxa</i> |            |                    |                  |            |
| IMA5                          | 883.626    | Fusaricidin A      | $[M+H]^+$        | [6]        |
|                               | 897.661    | LI-F0-4b (B)       | $[M+H]^+$        | [7]        |
|                               | 935.629    | Fusaricidin B      | $[M+K]^+$        | [8]        |
|                               | 954.715    | Fusaricidin C      | $[M+H]^+$        | [8]        |

| Inoculated strains                | <sup>a</sup> Disease incidence (%) | <sup>b</sup> Disease severity (%) | <sup>c</sup> Control efficacy (%) |      |
|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------|
| IMA2+ YY06                        | 30.0± 0.0 c                        | 23.33 ± 2.6 c                     | 60.9 c                            |      |
| IMA3+ YY06                        | 20.0± 0.0 d                        | 15.0 ± 1.3 d                      | 73.9 b                            |      |
| IMA4+ YY06                        | 46.7 ± 4.7 b                       | 29.16±1.6 b                       | 39.1 d                            |      |
| IMA5+ YY06                        | 10.0± 0.0 e                        | 9.16 ± 0.7 e                      | 87.0 a                            |      |
| IMA8+ YY06                        | 33.4 ± 4.7 c                       | 25.0± 1.8 c                       | 56.5 c                            |      |
| YY06                              | 76.7 ± 4.7 a                       | 64.16 ± 1.6 a                     | -                                 |      |
|                                   | 961.686                            | Fusaricidin D                     | [M+H] <sup>+</sup>                | [8]  |
|                                   | 968.733                            | Fusaricidin D                     | [M+H] <sup>+</sup>                | [8]  |
|                                   | 982.751                            | Fusaricidin D                     | [M+H] <sup>+</sup>                | [8]  |
|                                   | 999.641                            | Fusaricidin D                     | [M+K] <sup>+</sup>                | [8]  |
|                                   | 1191.871                           | Polymyxin P1                      | [M+H] <sup>+</sup>                | [9]  |
|                                   | 1207.836                           | Polymyxin B4                      | [M+Na] <sup>+</sup>               | [10] |
|                                   | 1640.024                           | Tridecaptins E                    | [M+Na] <sup>+</sup>               | [11] |
|                                   | 1641.985                           | Tridecaptins E                    | [M+H, Na] <sup>+</sup>            | [11] |
|                                   | 1655.997                           | Tridecaptins E                    | [M+K] <sup>+</sup>                | [11] |
| <i>Bacillus amyloliquefaciens</i> |                                    |                                   |                                   |      |
|                                   | 1463.773                           | C16 Fengycin A                    | [M+H] <sup>+</sup>                | [12] |
|                                   | 1477.787                           | C17 Fengycin A                    | [M+H] <sup>+</sup>                | [12] |
|                                   | 1449.755                           | C15 Fengycin A                    | [M+H] <sup>+</sup>                | [13] |
| IMA6, IMA8                        | 1515.769                           | Ala-6 C17-Fengycin                | [M+K] <sup>+</sup>                | [14] |
| IMA2, IMA6,                       | 1499.785                           | C17 Fengycin A                    | [M+Na] <sup>+</sup>               | [15] |
| IMA8, IMA10                       | 1485.773                           | C16 Fengycin A                    | [M+Na] <sup>+</sup>               | [15] |
|                                   | 1079.831                           | C15 iturin A                      | [M+Na] <sup>+</sup>               | [12] |
|                                   | 1095.816                           | C15 iturin A                      | [M+K] <sup>+</sup>                | [12] |
|                                   | 1109.507                           | C16 iturin A                      | [M+K] <sup>+</sup>                | [12] |

\*The ring-opened Lipopeptide.

**Table S2:** Inhibitory efficacy of five antagonistic bacterial strains against eggplant bacterium wilt 30 days after inoculation.

Means in the columns with different letters are different significantly at  $P < 0.05$  according to LSD. YY06: *Ralstonia solanacearum* strain.