

**Supplementary Fig. S1** Rarefaction curve of twelve upland rice seed samples (OTU = 0.03). Rarefaction curves present the relationship between the number of samples and bacterial species richness in OTUs.

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**Supplementary Fig. S2** Rank abundance curve of twelveupland rice seed samples (OTU = 0.03). The rank abundance curve is used to observe the richness and evenness of species.

**Supplementary Table S1** Statistics of the upland rice seed samples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample** | **Read number** | **Minlength** | **Maxlength** | **Average Length** |
| **19H011\_1** | 35895 | 341 | 541 | 434 |
| **19H011\_2** | 39306 | 384 | 505 | 434 |
| **19H011\_3** | 44421 | 375 | 503 | 434 |
| **19H012\_1** | 43402 | 403 | 503 | 434 |
| **19H012\_2** | 42974 | 370 | 522 | 434 |
| **19H012\_3** | 44082 | 411 | 528 | 434 |
| **19H013\_1** | 52729 | 411 | 502 | 434 |
| **19H013\_2** | 57624 | 422 | 503 | 434 |
| **19H013\_3** | 56246 | 424 | 503 | 434 |
| **19H014\_1** | 51076 | 386 | 503 | 434 |
| **19H014\_2** | 57090 | 386 | 503 | 434 |
| **19H014\_3** | 56272 | 367 | 503 | 434 |
| **19H015\_1** | 53287 | 310 | 542 | 434 |
| **19H015\_2** | 59182 | 370 | 503 | 434 |
| **19H015\_3** | 59601 | 383 | 546 | 434 |
| **19H017\_1** | 60583 | 367 | 503 | 434 |
| **19H017\_2** | 61327 | 305 | 505 | 434 |
| **19H017\_3** | 60219 | 341 | 520 | 434 |
| **19H018\_1** | 61706 | 402 | 503 | 434 |
| **19H018\_2** | 62303 | 387 | 502 | 434 |
| **19H018\_3** | 45562 | 341 | 503 | 434 |
| **19H019\_1** | 63962 | 397 | 503 | 434 |
| **19H019\_2** | 61915 | 356 | 541 | 434 |
| **19H019\_3** | 58244 | 359 | 503 | 434 |
| **19H022\_1** | 59542 | 330 | 503 | 434 |
| **19H022\_2** | 66125 | 379 | 503 | 434 |
| **19H022\_3** | 68867 | 396 | 504 | 434 |
| **19H024\_1** | 67326 | 395 | 504 | 434 |
| **19H024\_2** | 67618 | 384 | 534 | 434 |
| **19H024\_3** | 68542 | 390 | 505 | 434 |
| **19H029\_1** | 68776 | 422 | 549 | 434 |
| **19H029\_2** | 62790 | 412 | 503 | 434 |
| **19H029\_3** | 55811 | 389 | 502 | 434 |
| **19H032\_1** | 72736 | 411 | 504 | 434 |
| **19H032\_2** | 72521 | 411 | 503 | 434 |
| **19H032\_3** | 70047 | 395 | 540 | 434 |

**Supplementary Table S2** Statistical results of the alpha-diversity of endophytic bacteria in each sample before the sample is repeated without addition

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sample** | **OTUs** | **ACE** | **Chao** | **Shannon** | **Simpson** |
| 19H011\_1 | 638 | 2244.849 | 1610.154 | 2.451886 | 0.264118 |
| 19H011\_2 | 646 | 1834.232 | 1371.846 | 2.622823 | 0.214491 |
| 19H011\_3 | 648 | 2378.157 | 1370.161 | 2.404326 | 0.272852 |
| 19H012\_1 | 260 | 921.1201 | 595.8333 | 1.200866 | 0.496871 |
| 19H012\_2 | 315 | 1158.301 | 796.0286 | 1.457118 | 0.398514 |
| 19H012\_3 | 256 | 901.3217 | 653.8333 | 1.361228 | 0.429259 |
| 19H013\_1 | 155 | 1579.414 | 584.4 | 0.393423 | 0.842405 |
| 19H013\_2 | 139 | 1201.96 | 635.3636 | 0.349258 | 0.849197 |
| 19H013\_3 | 112 | 1700.36 | 476.0909 | 0.297555 | 0.868767 |
| 19H014\_1 | 272 | 1198.418 | 1060.667 | 1.298489 | 0.398397 |
| 19H014\_2 | 260 | 1274.988 | 813.0435 | 1.28728 | 0.400868 |
| 19H014\_3 | 272 | 911.7981 | 598.7568 | 1.288443 | 0.401985 |
| 19H015\_1 | 755 | 2282.966 | 1600.815 | 2.547999 | 0.240513 |
| 19H015\_2 | 396 | 2037.948 | 1262.563 | 1.280187 | 0.570363 |
| 19H015\_3 | 718 | 2213.745 | 1580.966 | 2.514651 | 0.225515 |
| 19H017\_1 | 723 | 2225.284 | 1619.78 | 2.716699 | 0.186833 |
| 19H017\_2 | 998 | 3254.527 | 2368.196 | 3.088863 | 0.180601 |
| 19H017\_3 | 685 | 2030.187 | 1485.413 | 2.760536 | 0.179811 |
| 19H018\_1 | 667 | 2113.219 | 1373 | 2.604757 | 0.191493 |
| 19H018\_2 | 674 | 2079.689 | 1548.079 | 2.605142 | 0.194408 |
| 19H018\_3 | 735 | 2370.94 | 1722.841 | 2.75305 | 0.157466 |
| 19H019\_1 | 425 | 1304.205 | 799 | 1.599329 | 0.45486 |
| 19H019\_2 | 411 | 1397.239 | 1009.523 | 1.464879 | 0.488971 |
| 19H019\_3 | 389 | 1123.081 | 683.0448 | 1.429507 | 0.514438 |
| 19H022\_1 | 388 | 1278.852 | 879.6327 | 1.540694 | 0.447724 |
| 19H022\_2 | 389 | 1223.895 | 952.1667 | 1.666564 | 0.379105 |
| 19H022\_3 | 365 | 1612.899 | 853.25 | 1.414622 | 0.48997 |
| 19H024\_1 | 735 | 2505.95 | 1608.979 | 2.081407 | 0.389308 |
| 19H024\_2 | 805 | 2454.842 | 1771.697 | 2.478629 | 0.280399 |
| 19H024\_3 | 803 | 2948.619 | 1896.093 | 2.239791 | 0.35721 |
| 19H029\_1 | 373 | 1289.267 | 820.8571 | 1.641382 | 0.376878 |
| 19H029\_2 | 364 | 1280.773 | 939.1667 | 1.651003 | 0.373221 |
| 19H029\_3 | 378 | 1334.556 | 886.3182 | 1.645488 | 0.382678 |
| 19H032\_1 | 424 | 1415.856 | 1077.4 | 1.571993 | 0.374198 |
| 19H032\_2 | 452 | 1380.318 | 946.1 | 1.755205 | 0.33483 |
| 19H032\_3 | 477 | 1837.946 | 1280.72 | 1.69051 | 0.351358 |

**Supplementary Table S3** Statistical results of some endophytic OTUs in upland rice seed samples

|  |  |  |
| --- | --- | --- |
| Name | Total | Elements |
| 19H011 19H012 19H013 19H014 19H015 19H017 19H018 19H019 19H022 19H024 19H029 19H032 | 39 | Otu05587 Otu00531 Otu03043 Otu00020Otu00102 Otu01185 Otu01476 Otu01992Otu01029 Otu04494 Otu00021 Otu00222Otu01322 Otu02651 Otu05023 Otu00344Otu01522 Otu01118 Otu04285 Otu00437Otu02121 Otu00136 Otu04103 Otu01053Otu00063 Otu01172 Otu00082 Otu02451Otu03680 Otu00137 Otu01420 Otu00036Otu00309 Otu00861 Otu03742 Otu00345Otu01896 Otu02920 Otu02951 |

Note：Only the coexisting OTU statistical results of 12 upland rice seed samples were listed in the table. For detailed results, please contact the author.