Table S1 Soil aggregate size distribution among different rice growth stages under three fertilization treatments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fertilization regime | Rice growth stage | Rhizosphere |  | Bulk soil |
| >2 mm | 0.25-2 mm | <0.25 mm |  | >2 mm | 0.25-2 mm | <0.25 mm |
| NPK | Tillering  | 15.6±0.5b | 52.2±1.3a | 32.2±1.7b |  | 14.8±0.4c | 50.3±2.0a | 34.9±2.0a |
| Jointing | 25.1±1.4a | 41.1±0.9c | 33.8±0.5b |  | 29.0±0.9a | 38.2±1.1b | 32.8±1.1ab |
| Maturity | 16.6±1.6b | 47.8±1.1b | 36.2±0.6a |  | 21.7±1.1b | 47.3±1.4a | 31.0±1.3b |
|  |  |  |  |  |  |  |  |  |
| NPK+RS | Tillering | 17.8±0.4c | 56.3±1.4a | 26.0±1.7b |  | 23.4±1.0b | 48.3±1.7a | 28.3±1.0a |
| Jointing | 31.1±0.4a | 37.6±0.4b | 31.3±0.7a |  | 36.1±1.2a | 39.3±0.5b | 24.6±1.1b |
| Maturity | 19.8±1.6b | 56.4±2.0a | 23.8±0.8b |  | 34.6±0.8a | 47.7±0.5a | 17.6±0.5c |
|  |  |  |  |  |  |  |  |  |
| CRF+CM | Tillering | 17.9±0.2c | 59.3±0.9a | 22.8±1.1b |  | 26.9±0.8c | 47.0±2.1a | 26.0±1.4a |
| Jointing | 28.3±2.1a | 44.5±2.1c | 27.2±1.2a |  | 37.5±2.2a | 39.2±1.4b | 23.3±0.8a |
| Maturity | 23.9±0.9b | 49.9±1.9b | 26.2±1.2a |  | 32.4±2.2b | 44.1±2.0a | 23.5±2.5a |

Note: NPK = mineral fertilizers alone; NPK+RS = mineral fertilizers plus rice straw; CRF+CM = controlled release blended fertilizer plus cattle manure. Values in a column in the same fertilization treatment followed by the same small letter are not significantly different at the 5% level of probability.



Fig. S1 Root biomass under three fertilization regimes at three rice growth stages. NPK = mineral fertilizers alone; NPK+RS = mineral fertilizers plus rice straw; CRF+CM = controlled release blended fertilizer plus cattle manure. Values at the same rice growth stage followed by the same small letter are not significantly different at the 5% level of probability.