Supplementary Tables

Table S1. Physicochemical analysis of the soil in Cabuya district.

Parameter	Values
Texture (Sand-Silt-Clay%)	**88-10-2**
pH in water (1:2:5)	**6.5**
Phosphorus (ppm)	**64.0**
Potassium (ppm)	**190.30**
Sodium (ppm)	**38**
Calcium (meq/100g)	**4.14**
Magnesium (cmol/Kg)	**1.99**
Aluminum (cmol/kg)	**0.20**
Organic matter (%)	**5.95**
Iron (mg/l)	**13.10**
Copper (mg/l)	**2**
Manganese (ppm)	**20.40**
Zinc (mg/l)	**43**

Table S2. Physicochemical analysis of the soil in Experimental Farm El Bajo.

Parameter	Values
Texture (Sand-Silt-Clay%)	**40-32-28**
pH in water (1:2:5)	**5.6**
Phosphorus (ppm)	**5.0**
Potassium (ppm)	**26.90**
Sodium (ppm)	**30**
Calcium (meq/100g)	**4.50**
Magnesium (cmol/Kg)	**1.60**
Aluminum (cmol/kg)	**17.30**
Organic matter (%)	**0.86**
Iron (mg/l)	**59.80**
Copper (mg/l)	**0.00**
Manganese (ppm)	**28.60**
Zinc (mg/l)	**0.60**

Table S3. CO_2 production on soil in Cabuya district and Experimental Farm El Bajo (seven days).

*Cabuya district (Antón) (mg CO_2 • 100 g^{-1})	**Experimental Farm El Bajo (Río Hato) (mg CO_2 • 100 g^{-1})
55	8.4
58	9.2

57	9.1
56	8.5
57	9.0
Mean ±SD 56.60 ±1.14	8.84 ±0.56

*** Organic rice plot (28 °C)**

****Non-organic conventional managed system (28 °C)**

Table S4. Deshydrogenase activity of soil in Cabuya district and Experimental Farm El Bajo. λ =485 nm (24 h).

*Cabuya district (Antón) (TPF in µg.g^{-1})	**Experimental Farm El Bajo (Río Hato) (TPF in µg.g^{-1})
77	12
75	11
73	12
77	14
74	15
Mean ±SD 75.2 ±1.79	12.8 ±1.64

*** Organic rice plot (28 °C)**

****Non-organic conventional managed system (28 °C)**

Table S5. In vitro plant growth-promoting trait production by five rice-associated bacterial strains. Indole-3-acetic acid (IAA, µg/mL) is reported as mean ± SD across 6 true biological replicates (2 replicates × 3 time points). Siderophore production (psu) is reported as single unreplicated determinations (24/48/72/96 h).

Strain	IAA (µg/mL), n=6 replicates	Siderophores 24/48/72/96h (psu, single determinations)
18	266.2 ± 120.2	0.244 / 0.092 / 20.00 / 69.84
24	241.8 ± 65.0	0.259 / 0.057 / 15.08 / 81.31
38	331.8 ± 91.4	0.273 / 0.053 / 10.49 / 82.62

52	202.3 ± 56.2	0.285 / 0.110 / 6.56 / 63.93
59	280.7 ± 136.0	0.309 / 0.120 / 1.31 / 60.66

Table S6. Open-field pot screening of 13 treatments. Grain yield (g/plant) is the mean ± SD across 5 individual plants per treatment. Height (cm) is the seasonal mean across 10 sampling dates through the growth cycle, not a single final-harvest measurement.

Treatment	Description	Height Seasonal Mean (cm)	Grain yield (g/plant)
T1	Absolute control	61.03	17.8 ± 2.4
T2	Urea Control 1 (N1)	63.51	27.2 ± 2.4
T3	Urea Control 2 (N2)	64.46	28.8 ± 2.2
T4	Strain 18	65.18	27.6 ± 3.4
T5	Strain 18 + N	63.82	32.1 ± 3.8
T6	Strain 24	65.17	22.2 ± 2.9
T7	Strain 24 + N	68.21	31.1 ± 1.2
T8	Strain 38	65.70	29.3 ± 1.9
T9	Strain 38 + N	67.08	29.4 ± 3.9
T10	Strain 52	64.90	27.9 ± 1.6
T11	Strain 52 + N	69.28	27.9 ± 3.6
T12	Strain 59	66.01	31.6 ± 5.0
T13	Strain 59 + N	68.22	28.2 ± 1.1

Table S7. Yield components by treatment (Phase I). Tillers per plant, panicles per plant, and filled/empty grain counts for the six Phase I treatments, both field sites combined. Values are mean ± SD (n up to 120 plants/treatment).

Treatment	Tillers per plant	Panicles per plant	Filled grains	Empty grains
TA1	9.0 ± 2.7	8.8 ± 2.5	103.2 ± 50.4	15.2 ± 9.8
TA2	8.6 ± 2.2	8.4 ± 2.1	99.0 ± 44.6	14.0 ± 12.5
TA3	11.4 ± 2.9	11.3 ± 2.8	120.1 ± 48.7	19.2 ± 15.6
TA4	10.8 ± 3.0	10.6 ± 2.9	117.9 ± 50.1	19.7 ± 14.5
TA5	9.7 ± 2.6	9.4 ± 2.7	133.8 ± 61.1	20.7 ± 15.2
TA6	8.0 ± 2.6	7.7 ± 2.4	115.3 ± 53.3	19.5 ± 11.8