Table S1 Amount and percentage of increased TN in sediment during the 150-day experiment in MPDS systems treated with different plant types.

	Increased TN	
	($mg \cdot kg^{-1}$)	(%)
Tyl	319.16±185.98ab	55±32
Phh	332.73±17.51 ab	58±3
Cai	358.00±96.86 ab	62±17
Eic	317.16±129.80 ab	55±5
Myv	325.06±103.48 ab	56±18
Acg	607.88±89.53 b	106±16
Rum	390.96±310.67 ab	68±54
Ijt	296.03±84.67 a	51±15
NP	516.07±88.42 ab	90±15

Data (mean±SD) in the same column with different letters indicate significantly different ($P<0.05$)

Table S2 Correlations between soil chemical properties and N cycling processes predicted by FAPROTAX.

	NO_3^--N ($mg \cdot kg^{-1}$)	NH_4^+-N ($mg \cdot kg^{-1}$)	TN($mg \cdot kg^{-1}$)
nitrogen_fixation	0.484*	-0.254	-0.155
ureolysis	0.364	-0.294	-0.118
aerobic_ammonia_oxidation	0.026	0.300	0.368
aerobic_nitrite_oxidation	-0.405*	0.126	0.449*
nitrification	-0.267	0.301	0.577**
anammox	0.255	0.552**	0.091
denitrification	0.124	-0.271	-0.067
nitrate_ammonification	0.135	0.092	0.259
nitrite_ammonification	0.445*	0.220	0.097
nitrite_respiration	0.148	-0.209	-0.107
nitrate_respiration	0.043	-0.129	-0.074
nitrate_reduction	0.023	-0.153	-0.098
nitrogen_respiration	0.066	-0.114	-0.075