1   Figure S1. Variations of daily air temperature and monthly precipitation during the growing seasons in

2   2018 and 2019.

3

4 Table S1. The global warming potential (GWP) (CH_4 and N_2O) during the growing seasons in 2018 and

5 2019 under water table (WT) and N deposition (N) treatments, and its contributions from cumulative

6 CH_4 and N_2O emissions.

		WT_{-30}			WT_0			WT_{10}		
		GWP (g CO_2-eq m^{-2})	CH_4 (%)	N_2O (%)	GWP (g CO_2-eq m^{-2})	CH_4 (%)	N_2O (%)	GWP (g CO_2-eq m^{-2})	CH_4 (%)	N_2O (%)
2018	N_0	19.26±3.50	-30%	130%	196.88±106.75	87%	13%	834.98±252.26	97%	3%
	N_{20}	21.26±7.42	-104%	204%	915.49±77.41	97%	3%	1113.86±314.48	97%	3%
	N_{40}	67.50±5.25	-8%	108%	367.78±101.27	91%	9%	543.12±75.18	87%	13%
	N_{80}	60.43±7.84	-16%	116%	57.08±7.12	3%	97%	221.51±35.79	60%	40%
	N_{160}	195.60±8.52	-4%	104%	216.33±5.47	7%	93%	269.57±35.93	35%	65%
2019	N_0	11.17±1.74	-112%	212%	102.99±37.78	67%	33%	525.91±73.40	96%	4%
	N_{20}	29.51±4.64	-40%	140%	274.93±21.98	84%	16%	667.04±24.27	94%	6%
	N_{40}	48.71±6.84	-15%	115%	258.14±38.17	76%	24%	495.90±10.71	88%	12%
	N_{80}	90.35±3.36	-14%	114%	118.41±12.97	24%	76%	425.57±91.89	73%	27%
	N_{160}	153.11±9.10	-5%	105%	223.82±5.54	6%	94%	454.95±31.28	62%	38%

7 Data are mean ± SE (n=3).

8